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ACADEMY OF NATURAL SCIENCES
OF
PHILADELPHIA.

Presented by DR. T. B. WILSON. — 18

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The
() HISTORY
of

Singing Birds

Price 5 shillings



THE HISTORY OF

Singing Birds

containing

An exact Description of their

Habits & Customs

& their manner of constructing their nests

their times of Incubation

With the peculiar excellencies of their several

SONGS

The Method of rearing them in Cages

& the preparation and choice of their

FOOD

Also the disorders they are subject to

with the mode of treatment

Including the history & management

of CANARY BIRDS

translated from the French of that

Count de Buffon

the whole ornamented with Copper Plates

(from Drawings after)

Culture

EDINBURGH

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ADVERTISEMENT.

Among the various embellishments which adorn and enliven the face of Nature, the numerous tribe of *Singing Birds* is not one of the least interesting; we need not therefore wonder, that mankind should annex a proportionable value to this beautiful part of the creation, which contributes so largely to alleviate and sooth his labours in the field, or to exhilarate his hours of tediousness and of lassitude in the closet; nay, it is not improbable, that to the melodious notes of those natural musicians, he was indebted for his first ideas of music. We find, accordingly, that the estimation they are held in is equally ancient and universal, and that in all countries where civilization had made any advances, *Singing Birds* became no inconsiderable article of luxury. Tropical climates produce a race remarkable for brilliancy and variety of feather; they are, however, surpassed in song by the natives of colder regions; but our own country perhaps exceeds every other, in producing birds unrivalled for the strength, sweetness, and modulation of their notes. As therefore the superintendance of these in a domestic state forms so delightful and innocent a recreation, the Editor of the following little work thinks any apology unnecessary for offering it to the public. A concise, accurate, and well-digested account of the history and management of *Singing Birds* seemed to be much wanted; that deficiency is now at-

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tempted to be supplied, by the present undertaking, which, besides a variety of information on the subject, not to be found in any similar Treatise, includes several valuable articles, from the works of Buffon, and other celebrated Naturalists.

But since no description, however just or lively, can convey so true an idea as a representation to the eye, care has been taken to illustrate this Work, by engravings of the cock and hen of each individual species.

Finally, as the Editor has been sparing neither of pains nor expence to render this little book as complete as the plan would admit. so he flatters himself that it will be found not unworthy of public attention.

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Place the Plates opposite the pages directing to the different Birds.

GENERAL
OBSERVATIONS
ON
BIRDS.

QUADRUPEDS have some distant resemblance, in their internal structure, with man, but that of Birds is entirely dissimilar; these animals seem wholly formed to inhabit the empty regions of air, in order that no part of nature may be left untenanted. Their wings, which are their principal instruments of flight, are formed, for this purpose, with the greatest exactness, and placed at that part of their body which best serves to poize the whole, and support it in a fluid that at first seems so much lighter than itself. The quills are at once stiff and hollow, which gives them the advan-

tage of strength and lightness; the webs are broad on one side, and more narrow on the other; both which contribute to the progressive motion of the bird, and the closeness of the wing. Thus each feather takes up a large surface, but with inconsiderable gravity, so that when the wing is expanded, the animal becomes specifically lighter than air. The smaller feathers with which it is clothed are disposed one over another in the exactest order, so as to lie closer in proportion to the rapidity of the flight. That part of them which is next the skin is furnished with a soft and warm down, and that next the air with a web on each side of the shaft, each single beard of which is itself a feather.

But as this lightness of the feathers might frequently be impeded by a shower of rain, or any other accidental moisture, by which means the bird might become an easy prey to every invader, Nature has provided an expedient whereby their feathers are as impenetrable to the water, as by their structure they are to the air. All birds in general have a receptacle replenished with oil, something in the shape of a teat, and situated at the extremity of their bodies. This teat has several orifices, and when the bird perceives its feathers to be dry, or expects the approach of rain, it squeezes this teat with the bill, and strains from thence a part of the

contained oil, after which, having drawn its bill successively over the greatest part of its feathers, they thus acquire a new lustre, and become impenetrable to the heaviest rains, for the water rolls off in large drops.

Every part of their mechanism, as was before observed, seems adapted for the improvement of their flight; their bones are extremely light and thin, and their muscles feeble, except the large pectoral muscle, by means of which they move their wings with such ease and rapidity. This very strong muscle fills up all that space on each side of the breast bone, which, though small in quadrupeds, is, in these, large, broad, and externally of a very great surface: by means of this, a bird can move its wings with a degree of strength, which, when compared to the animal's size, is almost incredible. The tail of birds serves to counterbalance the head and neck, guides their flight instead of a rudder, and greatly assists them either in their ascent, or when descending.

Granivorous birds, or such as live upon fruits, corn, and other vegetables, have their intestines differently formed from those of the rapacious kind. Their gullet dilates just above the breast-bone, and forms itself into a pouch or bag, called the crop. This is replete with salivary glands, which serve to moisten and soften the grain and other food which it contains. These glands are

very numerous, with longitudinal openings, which send forth a whitish and viscous substance. After the dry food of the bird has been macerated in the crop for a convenient time, it then passes into the abdomen, where, instead of a soft moist stomach, as in the rapacious kinds, the food is ground between two pair of muscles, commonly called the gizzard, covered on the inside with a stony ridgy coat, and almost cartilaginous. These, rubbing against each other, are capable of bruising and comminuting the hardest substances, their action being often compared to those of the grinding teeth in man and other animals. Thus the organs of digestion in quadrupeds are in a manner reversed in birds. Beasts first grind theirs with their teeth, and it passes into the stomach, where it is macerated and softened; on the contrary, birds of this sort first macerate it in the crop, and then it is ground and comminuted in the stomach. They are also careful to pick up sand and gravel, and other hard substances, not in order to grind the food, as is commonly imagined in the stomach, but to prevent the too violent action of the opposite muscles against each other.

The variety of methods which nature has taken to furnish the globe with creatures perfectly formed to indulge all their peculiar appetites, deserves our wonder; but wondering is not the way to grow wise. We shall find the general-

ty of birds, though so well fitted for changing place with rapidity and ease, for the most part contented with the places where they were bred, and by no means exerting their desire in proportion to their endowments. The rook, if undisturbed, would never leave its native wood; the blackbird still frequents its accustomed hedge, and if ever they change, it is only from motives of famine or of fear. There are some sorts, however, called Birds of Passage, which remove to warmer or colder climates, as the air or their peculiar nourishment invites them. In general, every bird resorts to those climates where its food is found in plenty, and always takes care to hatch its young at those places, and in those seasons, where provisions are in the greatest abundance. The large birds, and those of the aquatic kind, chuse places as remote as possible from man, as their food is different from that which is cultivated by human industry. Some birds, which have only the serpent to fear, build their nests in such a manner as to have them depending at the end of a small bough, and the entrance from below: but the little birds, which live upon fruits and corn, are found in the greatest plenty in the most populous countries, and are too often unwelcome intruders upon the fruits of human labours. In making their nests, therefore, the little birds use every art to conceal them from man, while the

great birds use every precaution to render theirs inaccessible to wild beasts or vermin. The unerring instinct which guides every species in contriving the most proper habitation for hatching their young, demands our observation. In hot tropical climates, nests of the same kind are made with less art, and of less warm materials, than in the temperate zone, for the sun in some measure assists the business of incubation. In general, however, they build them with great art, and line them with such substances, as keep or communicate warmth to their eggs. Nothing can exceed their patience while hatching, neither the calls of hunger, nor the near approach of danger could drive them from the nest; and though they have been found fat upon beginning to sit, yet before the incubation is over, the female is usually wasted to a skeleton.

Of all birds the Ostrich is the greatest, and the American Humming-Bird the least. In these the gradations of nature are strongly marked, for the Ostrich in some respects approaches the nature of that class of animals immediately placed above him, namely quadrupeds, being covered with hair, and incapable of flying; while the Humming-Bird, on the other hand, approaches that of insects. These extremities of the species, however, are rather objects of human curiosity than use. It is the middle or-

der of birds which man has taken care to propagate and maintain; these largely administer to his necessities and pleasure, and some birds are even capable of attachment to the person that feeds them. How far they may be instructed by long assiduity, is obvious from a late instance of a Canary Bird which was shewn in London, and which had been taught to pick up the letters of the alphabet at the word of command.

Of all the various species of singing birds commonly bred in Britain, none seem so hardy, or so well adapted to the climate, as those that are the genuine and native produce of the country. Many very fine foreign birds when imported here, or when hatched from a brood originally imported, often degenerate and lose their spirits, and seldom arrive at that perfection of singing with which their native air inspires them. The Nightingale and Wood-Lark, two of the most melodious of the musical tribe, rarely, if ever, thrive in this country. It is true they are naturally delicate and tender, and extremely subject to colds and cramps, and these, the small exercise they have in a cage contributes not a little to foster; besides, our ignorance of those natural medicines which they pick up in the fields or woods, often prevents our capacity of curing them: but it is not to be doubted, that a change of air has the same ef-

fect on these as on other animals; more especially, as their habit of body is so very nice, that they are not able to bear the least neglect of management. For this reason, the Sky-Lark, the Linnet, and Gold-Finch, as being natives, and hardy birds, seem the fittest for our training and amusement. All of them are extremely entertaining and surprisingly agreeable in their different ways: the Sky-Lark, for a vast compass of natural notes; the Linnet, for his docility in imitating regular music; and the Gold-Finch, besides his agreeable notes, for his faculty of learning to draw water, and such other conceits. These may always be bred with success, and continue to divert us for many years.

Of all foreigners, the Canary-Bird bids the fairest for recompensing our care and pains. It is naturally a healthy bird, and, if under proper management, may be preserved a long time. The custom some have of coupling Gold-Finches, contributes to the hardiness of the offspring, though they degenerate both in colour and song. As they are almost the only birds which we take the trouble to hatch and bring from the egg, the satisfaction we have in supplying them with necessaries, both for food and building, in observing their little courtships when pairing, their dexterity in rearing their nests, the readiness of the male to take his turn in all the du-

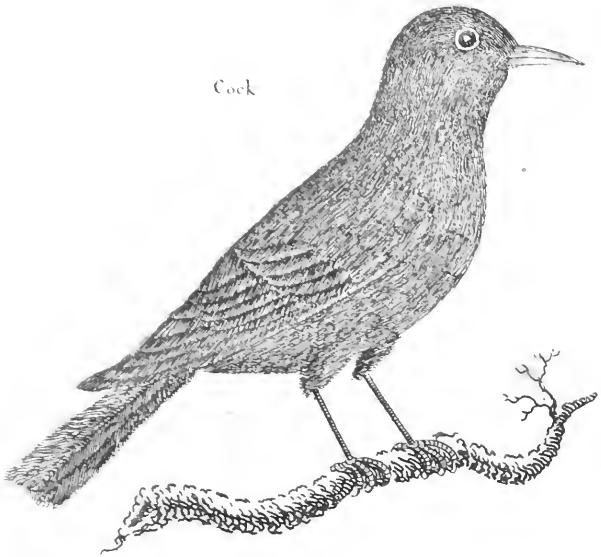
ties of building, hatching, and feeding, together with the continual melody wherewith they charm us, affords a pleasure as serene and exquisite as any we can feel beside, and fills our minds with gratitude and love to that Supreme Being, who has formed such a variety of beautiful harmonious creatures for our admiration and amusement. Of the larger kind of birds, which we often train up for our diversion, such as the Black-Bird, the Starling, and Song-Thrush, none of them seem so agreeable companions as the above; though all of them are fine singers: the two former cost us much pains in teaching, as their natural notes are somewhat wild and unharmonious; and the latter, though remarkable for his vast variety of music, is so loud and clamorous in his song, as almost to deafen the ears of the hearer, and therefore the woods seem a fitter habitation for him than the cage. Some of the other small birds are endowed with very fine natural notes, but have neither that variety of harmony, nor that facility of being taught, as these above mentioned have; besides that many of them are sullen, and extremely stubborn in their manner: I would therefore advise such of my countrymen as are lovers of birds, chiefly to cultivate and train up the most melodious of the species, and such as are natives of the climate, viz. the Sky-Lark, the Linnet, and Gold-Finch; and if they can afford

the time and attention requisite, they may hatch
Canaries, and raise an aviary in their houses,
which, by an almost uninterrupted concert of
natural music, will sufficiently compensate their
cost and trouble.

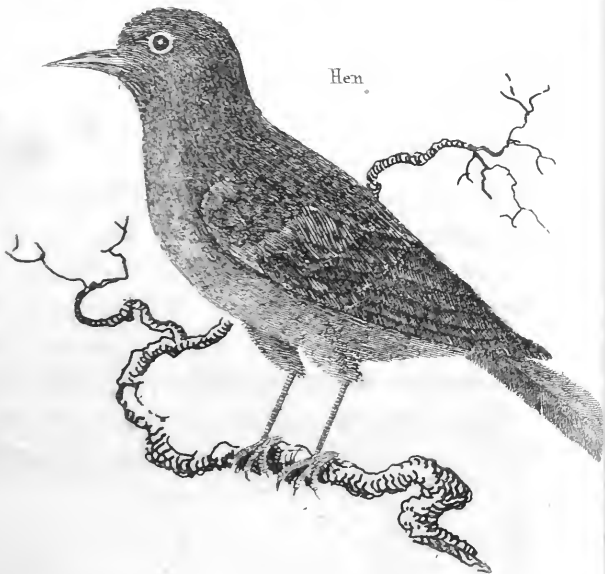


BLACK BIRD

Cock



Hen



HISTORY
OF
SINGING BIRDS.

BLACK-BIRD.

The Description and Character.

THIS is a well-known bird, being common in most, if not all the counties in England; therefore needs not a particular description. He is the largest song-bird that I know of, found in this kingdom; and likewise one of the first that proclaim the welcome Spring, by his shrill harmonious voice, as if he were the harbinger of Nature, to awaken the rest of the feathered tribe to prepare for the approaching season; and by the sweet modulation of his tuneful accents, endeavours to delight the hen, and allure her to submit to his embraces, even before there are leaves on the trees, and

whilst the frosts are in the fields; building their nest the soonest of any bird; having young ones commonly by the 25th of March, and sometimes by the middle of that month.

The cock, when kept in a cage, whistles and sings very delightfully all the Spring and Summer time, at least four or five months in the year; is a stout hardy bird; which, besides his pleasant natural note, may be taught to whistle, or play a tune.

The Black-Bird, when wild in the fields, feeds promiscuously upon berries and insects: 'tis a solitary bird, that, for the most part, flies singly.

The distinguishing Marks of the Cock and Hen.

THEY are not easily known by their colour while young, but the blackest bird generally proves a cock: the irides, or circle, that circumvests the eye in the young cock-bird, is yellow: his bill is black, and turns not perfectly yellow till he is near a year old: the bill of an old cock-bird is of a deep yellow; in the hen the tip and upper part is black; the mouth, in both, is yellow within: the hen, and young cock-birds are rather brown, or of a dark russet, than black, and their bellies of an ash-colour; but after the cock has mewed his chicken feathers, he becomes coal-black.

The Time and Manner of the Black-Bird's building her Nest, &c.

THIS bird, as I observed before, breeds very soon in the year, and has young ones by the end of March, or sooner: she builds her nest very artificially; the outside of moss, slender twigs, bents, and fibres of roots, all very strongly cemented and joined together with clay; plaistering the inside also, and lining it with a covering of small straws, bents, hair, or other soft matter; upon which she lays four or five eggs, seldom more, of a bluish green colour, full of dusky spots. She builds pretty open, generally in a hedge, near the ground, and before there are many leaves upon the bushes; which so exposes her nest, considering the largeness of it, that it may be easily discovered.

The cavity of a complete nest I measured was two inches and an half deep; diameter at the top, four inches one way, and five the other, being of an oblong figure: it weighed thirteen ounces: the bird itself is in length, from the tip of the bill to the end of the tail, eleven inches, of which the bill is one inch, and the tail four inches long.

Of the young Birds, and how to order them.

THE Black-Bird has either four or five young ones at a breeding, hardly ever more or less; you may take them at twelve days old, or sooner; they may be raised with little trouble, taking care to keep them clean, and feeding them with sheep's heart, or other lean meat, that is not salted, cut very small, and mixed with a little bread; and, while young, give them their meat moist, and feed them every two hours, or thereabouts; when they are grown up, feed them with any sort of flesh meat, raw or dressed, provided it be not salt; it will be rather better food for them, if you mix a little bread with it. When their nest grows foul, take them out, and put them into a cage or basket, upon clean straw; and when they can feed themselves, separate them.

He is a stout healthful bird, not very subject to disorders; but if you find him sick, or droop at any time, an house-spider or two will help him; and let him have a little cochineal in his water, which is very chearful and good. They love to wash and prune their feathers; therefore when they are fully grown up, set water in their cages for that purpose.

It is to be remembered as a general rule, to give all your birds wholesome good food, never letting it grow stale or sour, and to be ever mindful of keeping their cages clean: these are the surest means to make all kinds of birds thrive, and to prevent many diseases they are subject to from nastiness and unwholesome food and water.

Black-Birds are always brought up from the nest, the old ones not being to be tamed.

SONG-THRUSH, or MAVIS.

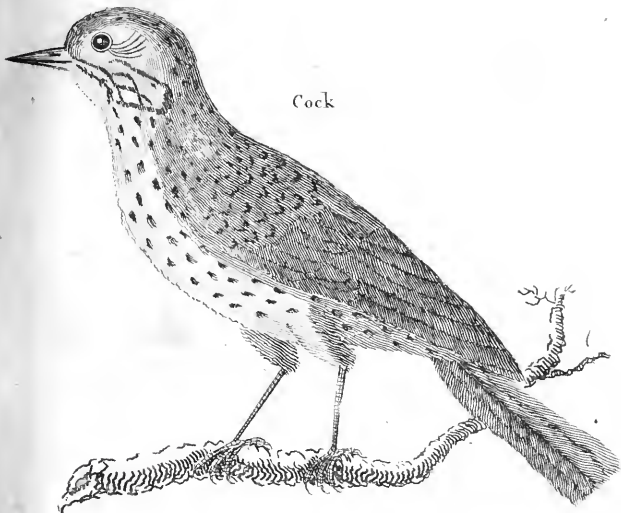
Description and Character.

THE common Song-Thrush is somewhat less than the Black-Bird: the upper surface of the body is of an olive colour, with a mixture of yellow in the wings; the breast yellowish, spotted with dusky spots, and the belly white.

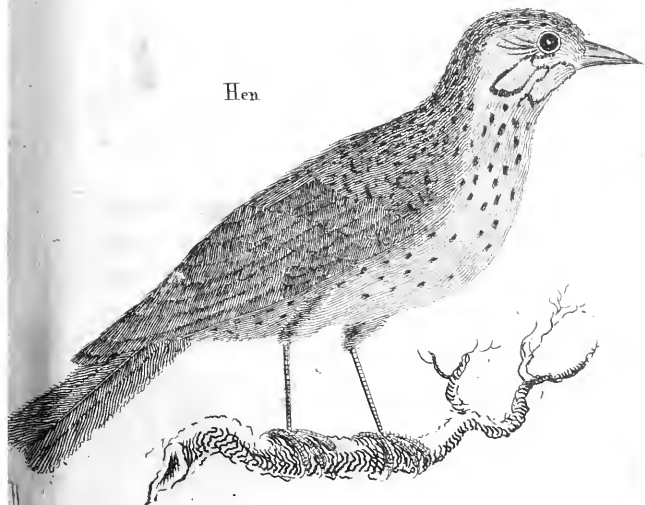
There are three or four other sorts of Thrushes found in England; as, first, the Great Thrush, called the Mistle-Bird, Mease-Taw or Shrite, which in the colour of the breast and belly agrees with the Song-Thrush, but is a bigger bird: he is very beautiful to look at, but not valued for singing, therefore seldom kept in a cage.

The second sort, called the Red-Wing, Swine-Pipe, or Wind-Thrush, is in shape and colour so like the Song-Thrush, that they are hard to be distinguished, only the latter hath more and greater spots on the breast and belly, and is somewhat bigger: this kind is in no esteem for singing. It is a bird of passage, that shifts places according to the season of the year; but whether it goes, is not to us perfectly known.

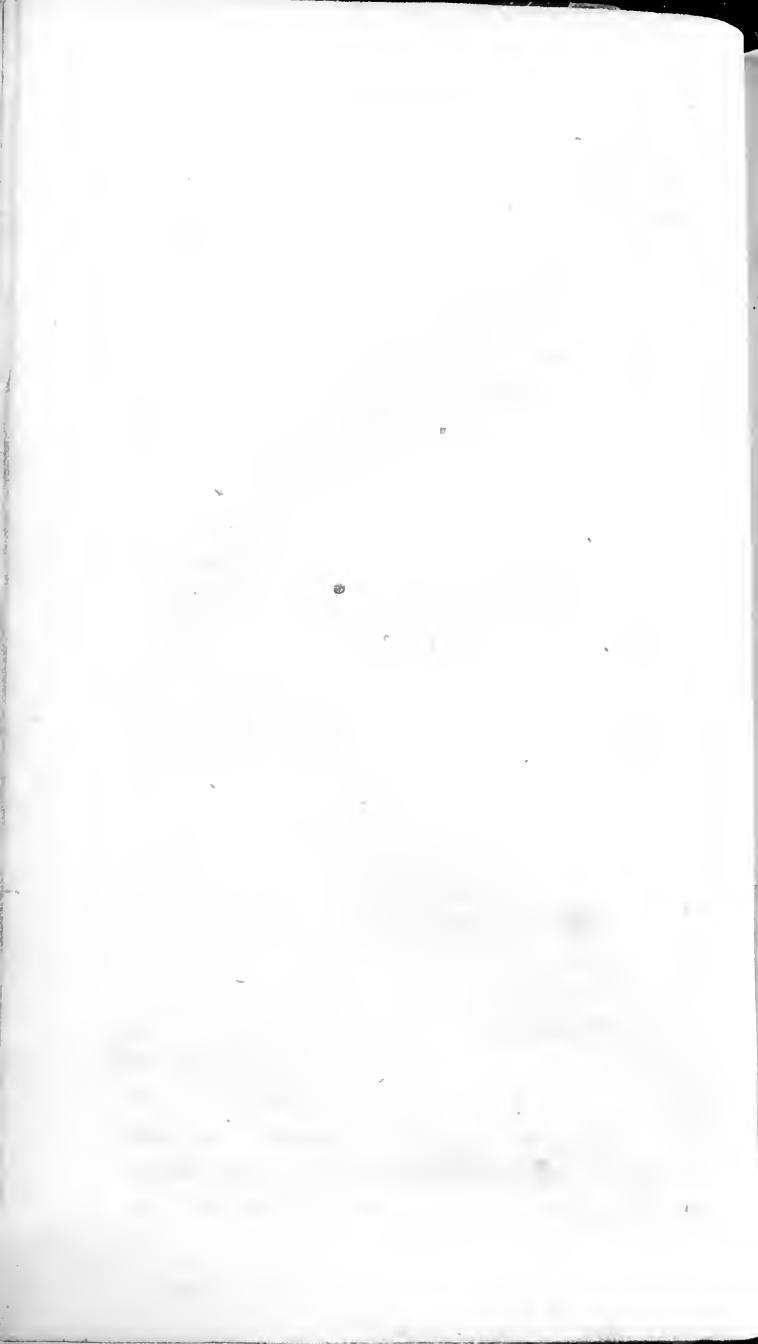
S O N G T H R U S H



Cock



Hen



The third sort is called the small Heath-Thrush, from its building upon heaths and commons; he is of a darker colour than any other of the Thrush kind, and by some valued for singing; but as none of the sorts are comparable to the common Song-Thrush, nor so well known, I shall treat of the Song-Thrush only; which is a curious bird, as well for the great variety of his notes, as his long continuance in song, which is, at least, nine months in the year. In the beginning of the Spring, he sits on high trees, and sings most sweetly, and is as delightful a bird as a person can desire to keep in a cage; some of them, when they have been brought up from the nest, have learnt the Wood-Lark's, Nightingale's, and other curious birds songs.

Distinguishing Marks of the Cock and Hen.

THE cock and hen of this kind are so much alike in the colour of their feathers, and shape of their bodies, that, notwithstanding I have carefully examined them divers times, I could not discover any certain marks whereby to know the one from the other: yet thus much I have discovered, which will appear to a nice observer:—in a full-feathered bird, the dusky, or olive colour on his back, &c. is somewhat

darker than the back, &c. of the hen-bird; has a more glossy cast; the spots on his breast and belly seem darker, and brighter likewise, and rather more white appears on his belly.

It is observable, that in the cocks and hens of all kinds of birds, where the colours are the same in both, yet the cock-bird constantly exceeds the hen in the resplendency of his feathers: in the Song-Thrush, in an old bird, this difference is apparent; but then we are not put to such difficulties to know the cock, he sufficiently discovers himself by his fine song.

In young Thrushes, I would always chuse the fleekest and brightest bird; when they begin to feed themselves, both cocks and hens will record: the cock will get upon his perch, and sing his notes low, for some time; the hen will attempt to sing, but do it only by jerks, and so disappoint your expectation. At the latter end of the Summer, when their moulting is over, the cocks will break out strong in song, and sing in Winter as well as Summer.

Time and Manner of building her Nest.

THIS bird breeds very early in the Spring, nearly as soon as the Black-Bird; she commonly has young ones by the end of March, or beginning of April. I saw a nest of young about

the 5th or 6th of April, notwithstanding it had been a cold Spring, which were well feathered, and at least twelve days old.

The Thrush builds in woods or orchards, sometimes in a thick hedge, near the ground. The outside of her nest consists of fine soft green moss, interwoven with dead grass, hay, &c. The inside very curiously plaistered with cow-dung; not daubed, as some have said, but with better skill than many of our plaisterers could do the same work. Note, The Black-Bird always plaisters with clay or mud, this bird always with cow-dung; the other lays a covering of soft stuff in the inside to lay her eggs upon; the Thrush lays her's upon the bare inside or plaistering, but not till it is thoroughly dry; five or six in number, of a bluish green colour, speckled with a few small black spots, chiefly at the biggest end.

The hollow of a complete nest I measured was two inches and a half deep; the diameter of the inside at the top four inches; it was exactly round, and the whole nest weighed one ounce and three quarters.—I examined two more at the same time, which were nearly of the same dimensions with this, but in weight, one three ounces, the other three and an half. The length of a full-grown bird, from the point of the bill to the end of the tail, is nine inches; of which the bill is one, and the tail three and

a half; therefore, allowing for tail, bill, and head, which always lie out when she sits in her nest, the cavity is just fitted to receive her body. The same I have observed of the nests of some other birds; especially such as build with sides, and make deep cavities. The bird stands within side when she is at work, and makes her own body the model of her dimensions in building.

Of the Young, how to order them, &c.

THE Song-Thrush has five or six young ones at a breeding; they may be taken at twelve or fourteen days old, or sooner, if it be mild weather; they must be kept warm and clean, and fed with raw meat, bread, and hemp-feed bruised; the meat cut small, and the bread a little wet, and then mixed together: feed them once in about two hours. You must be sure to keep them very neat and clean; take their dung away every time you feed them: when their nest grows very foul, take them out, and put them in clean straw; and when they are pretty well feathered, put them in a large cage with two or three perches in it, and dry moss and straw at the bottom. When they are grown up, you may feed them with flesh meat, boiled, raw, or roasted,

provided it be not falt; or you may by degrees entirely wean them from flesh, and give them only bread and hemp-feed; but I approve of flesh, mixed with bread, as the best food. Give them fresh water twice a-week to wash themselves; otherwise they will not thrive: if they are kept dirty, it will give them the cramp, to which they are very subject. Good victuals, water, and clean lodging, are the best means to prevent it.

The Thrush, when in the fields, feeds on insects and snails, as also berries of white thorn and milletoe.

THERE is another kind of the Thrush, called the MISSEL-BIRD, from its feeding on the berries of the milletoe.

This bird, in the colour and spots of the breast and belly, agrees with the Song-Thrush; but is a larger bird, and very rare to be seen.

They build their nest in a thicket, near where plenty of milletoe is; or in some pit, it being a very solitary sort of bird: They make as large a nest as a Jay, and lay as big an egg; they build commonly with rotten twigs the outside of their nest, and the inside is dead grass, or moss that they pull from trees. This bird delights might

tily in old orchards. The hen breeds twice a year, and hath three young ones at a breeding; never above four, she feeds all her young with the berries of mistletoe, and nothing else that ever could be perceived.

This bird is very beautiful to look at, but not valued for singing.



S T A R L I N G



Cock



Hen

STARLING.

Description and Character.

THE Starling is nearly as big as the Black-Bird, and in shape very much like that bird. It does not sing naturally, but has a wild, screaming, uncouth note; yet, for his aptness in imitating man's voice, and speaking articulately, and his learning to whistle divers tunes, is highly valued as a very pleasant bird; and, when well taught, will sell for five guineas or more.

They are gregarious birds, living and flying together in great flocks: they company also with Red-Wings and Field-Fares; yet they do not fly away with them, but abide with us all the year.

Marks of the Cock and Hen.

THERE is a mark peculiar to the cock of this kind, whereby he may be known from the hen, whilst young. Under his tongue he has a black stroke, very plain to be seen if you open his mouth, which the hen hath not, or, at least so faint, that it is hardly visible; but the first time the cock moults his feathers, he loses that black stroke: he may then be known from the hen

by his colours, in the beauty of which he much excels her. His breast has a changeable cast of green, red, purple, &c. else the feathers all over his body are black, with a blue and purple gloss, varying, as it is variously exposed to the light; only the tips of the feathers on his head, neck, and breast, are yellowish; and on the belly, &c. white: all his spots and colours are brighter than those of the hen. The bill of the cock is of a pale yellow, inclining to white; in the hen, dusky.

Time and Manner of the Starling's building her Nest.

THIS bird usually breeds in May, has young ones fit to take towards the end of that month, sometimes by the middle of it. They build their nest in the holes of towers, pigeon-houses, trees, &c. The goodness of these birds does not depend upon the places where they breed, though some have given the preference to one sort, and some to the other; for my part, I could never find such a difference as to esteem one sort before the other, for the same birds may build in any of those places, as they find it most convenient for them. She lays four or five eggs, lightly tinged with a greenish blue.

Of the Young, how to order them, &c.

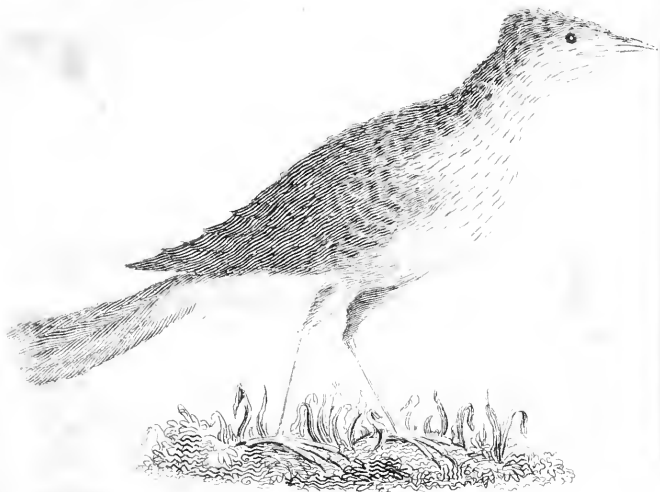
THE Starling has four or five young ones at a breeding; they may be taken when double pen-feathered, which is about ten days old; taking the same care in keeping them very clean and warm, as was directed in the Black-Bird and Thrush: you may put them in a basket in clean straw, and bring them up with the same meat, and after the same manner as young Black-Birds, feeding them every two hours, five or six small pieces at a time; let them have enough, but never overload the stomachs of young birds, it does them more harm than good. Every time you feed, or take them in hand, you may talk to them what you would have them learn; they are apt birds, and will take it presently. To slit their tongues, as many people advise and practise, that the birds, as they say, may talk the plainer, is a cruel and useless expedient; they will talk as well without, as I have found by experience; as will likewise Magpies, and other talking birds. When they can feed themselves, put them in a large cage, with clean straw or moss at the bottom, and give them sometimes clean water to wash themselves in; this is the most sure method to have good healthful birds, such as will reward your trouble in bringing them up. The Starling, when wild, feeds upon beetles, worms, and other insects.

The length of a full grown bird, from the tip of his bill to the end of his tail, is nine inches; of which the bill is an inch and a quarter, and the tail three inches long; and, when in flesh, weighs about three ounces.

This bird is naturally hardy and healthful; but when kept in a cage is subject to the cramp, fits, &c. sometimes it seizes him so suddenly, that he will fall down from his perch, and beat himself to death presently; a spider or meal-worm is a good remedy against it, giving him two or three at a time, twice or thrice a-week. If you give him good meat and drink, as I said by the Black-Bird, and keep him clean, it will prevent his fits. or any other disorder, better than any thing else that I know of.



S K Y L A R K



S K Y - L A R K .

Description and Character.

THE cock Sky-Lark is as good a song-bird as most this land produces : he is vastly stout and lavish in his song ; but thought by some people too loud and harsh. I must own, though he has a great many fine notes, they are not so melodious as the Wood-Lark's, which in variety and softness much excels him, and, to my fancy, all small birds, without exception ; but that valuable bird is exceeding tender, very subject to the cramp and other diseases, so that he can be kept but a short time in a cage ; two or three years we count a great while. I don't deny but sometimes they reach beyond that date, yet the far greater number make their period a great deal sooner ; whereas the Sky-Lark is a long-lived, healthful bird, that will reach fifteen or twenty years : I have heard of several which have lived to that age, and sung stoutly all that time ; therefore, considering the stateliness and beauty of this bird, his great freedom in singing his pleasant harmonious notes for at least eight months in the year, and the time he may be kept in a cage, with care,

he is highly deserving of the character I have given him, and worthy the esteem of all lovers of birds. If you can bring a young one up under some fine Song-Lark, it is a way to have a very valuable bird; but if you suffer him to hear other birds, he will be apt to take their notes, whether good or bad, to which no bird is more subject.

To know the Cock from the Hen.

To distinguish one from the other in this kind is no easy matter, and about which there are various opinions, but hardly one that can be depended upon: they say the bird that sets up his feathers on his crown is certainly a cock, and that the longest heel-bird is another sure sign; and some say, by two white feathers in the tail: this is all but guess work, that sometimes proves right, and sometimes wrong. I am told, the biggest and longest bodied bird never fails of proving a cock; I can't say that I ever made the observation myself, nor do I pretend to know a cock-bird of this kind till he is about a month old, when he will begin to record his notes very distinctly, like an old bird, but low and inwardly; if you hear him do that, you can't well be deceived. When they are grown up, and fully feathered, that general remark, in some measure, will hold good, that the high-

est-coloured bird is the cock; for whoever observes them together may perceive the Cock-Lark to be something browner upon the back; of a more yellowish cast on the throat and breast, and the feathers whiter upon the belly.

Time and Manner of Building their Nest, &c.

THE Sky-Lark has young ones by the end of April, or beginning of May. She builds her nest, such as it is, for she uses but very little stuff about it, only with a few bents, or such like materials, always upon the ground, or in a hole made by the foot of a horse, the wheel of a cart, &c. either in corn-fields of any sort, or in pasture of any kind, and lays four or five brown eggs, almost the colour of a clod of earth, thickly specked, as the figure represents, with brownish specks.

Of the Young, how to order them, &c.

THESE birds must be taken when about ten days old; if you let them alone longer, you run a great hazard of losing them. I have known them quit their nest in seven or eight days, when they have been disturbed, especially if the old ones see you look at their young, they will then entice them away of a sudden; and in rainy weather, it is surprising to see how

young they will leave their nest; I have been disappointed at such a time, when I thought it almost impossible for them to get away: one would naturally think the nest to be the best and safest place for them in such weather; but so it is, I have remarked it often, that the young of most, if not all kinds of birds, are nourished more, their feathers grow faster, and they sooner fly, or quit their nests, in wet, than in dry weather.

When you have taken a nest of young, put them into a basket with some short clean hay at the bottom, cover and tie them down close and warm, and feed them with white bread and milk boiled thick, mixed with about a third part of rape seed, soaked, boiled, and bruised: some bring them up with sheep's heart minced very fine, or other flesh meat. I cannot too often repeat the care that is necessary, in bringing up young birds, in keeping them clean, and feeding them regularly once in about two hours, from morning till night, with fresh and wholesome food, as the principal means of preserving them: in a week's time you may cage them in a large cage, putting some hay cut pretty short, or coarse bran, at the bottom, turning or shifting it every day. Order them after this manner till they can feed themselves with dry meat, viz. bread, egg, and hemp-feed, which they will do in about three weeks or a month. Remem-

ber to boil your egg very hard, grate it fine, and mix it with an equal quantity of hemp-feed, bruised while the birds are young, but when they are able to crack the feed, give it them whole, and a little bread grated among it. You may then let them have a fresh turf of grass once or twice a-week, and sift some fine dry gravel at the bottom of the cage, shifting it often, that it may not clog their feet: for change of diet, you may sometimes give them a little of the flesh meat. After they have done moulting, you may give them bread, egg, and whole hemp feed every other day, and a fresh turf once a-week. As the birds are of an hardy nature, this careful management will preserve them many years.

This bird at full growth is six inches and a quarter long; of which the tail is three inches, and the bill three quarters of an inch. When in flesh it weighs about an ounce and a half.

The Sky-Lark, as mentioned before, seldom ails any thing; but if you perceive him at any time to scour, or dung loose, grate a small matter of old cheese among his victuals, or give him three or four wood-lice in a day, or a spider or two, and in his water a little saffron, or liquorice; these are the best things I can recommend, and what will relieve him, though he won't often stand in need of any thing more than good meat and drink, clean gravel, and a fresh turf.

*Several Ways of catching Sky-Larks.**To take Pushers.*

THEY are birds which have left their nest three or four days: to take them, you must watch in some convenient place, as much out of the old ones sight as possible; either stand close in a hedge, or lie down in the field, &c. and you will presently see them bring meat to feed their young; which, as soon as you perceive, and observe them to hover just over the grass, &c. and drop down on a sudden, run in upon them as fast as you can, where you will generally find the young birds; if you miss them, search narrowly about, for they will creep into some hole and lie close, or in a large turf of grass, &c.: sometimes they will run away among the grass or corn, exceeding fast; when they do that, you can very seldom catch any: you must wait for the old ones bringing them meat again; but don't run in the first time; see if they come two or three times with meat, and settle at the same place; if at different places, and at little distances from each other, then you may be sure the young ones have straggled in the fright, and are at those different places; you may then run in where you judge they are

by the constant coming in of the old birds, who will find them out, and soon get them together again.

When you take any of these birds, put them in a large cage with hay or coarse bran at the bottom, and feed and order them as you do the nestling. If you find them fallen that they won't eat, you must for a little while cram them with sheep's heart, &c. they will soon come to. These birds generally prove as good, or better, than those raised from the nest.

To take Branchers.

WE call all those young birds by that name that were bred, and flew that year, about two or three months old, before they have moulted their nestling feathers; what are taken at that age, before they begin to moult, are very good, little inferior to the nestlings; but after they have moulted, or in moult when taken, seldom prove good birds.

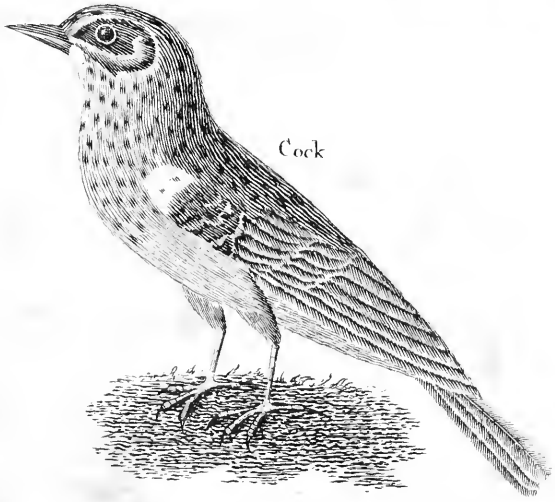
The time for taking Branchers is in June or July, with a hawk, and a net of about eleven or twelve yards long, and three or four broad, with a line run through the middle of it. There must be two persons, one to carry the hawk, the other to take hold of one end of the line; and when you find where Larks lie, get as near to them as you can, then hold your Hawk up

upon your hand, making him hover his wings, which, when they perceive, they will lie very close to the ground: then let one take hold at one end of the line, and another hold of the other end, till you come at the place where they are, holding your Hawk up as you go; at the sight of which, they will lie so close that you may very easily draw your net over them. When you have taken them, give them bread, egg, and bruised hemp-feed; put in the bottom of the cage red sand, and strew them a little meat in the cage for two or three days, and they will presently become tame.

Sky-Larks are taken in flight with clap-nets in great numbers. In some places they take them with a glass, called a Larking-glass; this they use of a sun-shiny day, which makes great havock amongst these birds: but the most destructive way is in the dark nights with a net called a Trammel; it is a very murdering net, taking all sorts of birds that it comes near, as Partridges, Quails, &c. Larks are ensnared likewise with a noose made with two horse-hairs twisted together, which catches them by their neck or legs. This way is practised when the ground is covered with a deep snow.

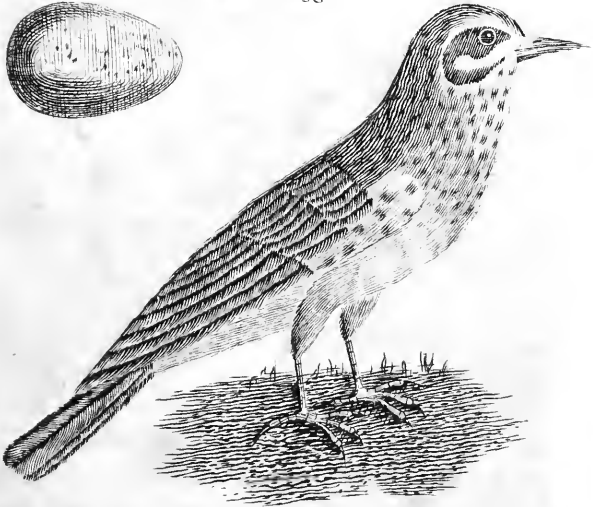


WOOD - L A R K .



Cock

Hen & Egg



WOOD-LARK.

Description and Character.

THIS bird is universally admired for his great variety of soft and delightful notes, that, in the opinion of most people, he is the best song-bird found in this kingdom: he is not only, as some have said, comparable to the Nightingale for singing, but, in my judgment, deserving to be preferred before that excellent bird, and if he be hung in the same room, will strive with him for the mastery; as likewise it sometimes happens in the woods, where there is a strong contention between these two choristers to excel and outdo each other. If brought up from the nest, and caged in the same room with a Nightingale, he will learn his notes, and as it were incorporate them with his own.

He is of great beauty, both in shape and plume: his breast and belly are of a pale yellowish hair-colour, faintly spotted with black; the back and head are party-coloured, of black and reddish yellow, a white line encompassing the head from eye to eye, like a crown or wreath. It is something less, and shorter bodied than

the common Sky-Lark, and sits upon trees, which that bird seldom or never does.

In addition to Mr Albin's account, the editor of this book takes the liberty of adding an account sent by a gentleman that has made many accurate observations on birds:—The cock Wood-Lark is flat-headed, and full behind the ears, with a white stroke from each nostril, forming a curve-line over the eye, and almost meeting behind the neck; the whiteness of this line, and its extension behind the neck, are the best signs to distinguish the male: they are full chested, long from the neck to the shoulder of the wing, narrow on the vent and rump; the rump part a dark brown, with a long lightish tail, and the two corner feathers touched with white; long in body, and carries himself upright; some of the feathers under the throat have small stripes, they have three small white feathers on the top of the shoulder, and a long heel.

The hen is narrow-headed, and brown over the eyes, flattish from the breast to the belly, and round at the rump, short-heeled, and only two whitish, dull, or cream-coloured feathers on the shoulder, and the curve-line of the head reaches but a little beyond the eye.

Marks of the Cock.

HE is known by his size, the biggest and longest-bodied bird generally proving a cock, and by the largeness and length of his call; the tall walking of the bird about the cage, and at evenings the doubling of his note, which we call cuddling, as if he were going to roost. Other marks are by the length of his heel, the largeness of his wing, and by his setting up the crown upon his head: some will tell you, that these are certain signs of its being a cock; yet they do not always prove true: but if you hear him sing strong, you cannot be deceived, for the hen bird will sing but little. The use of this is chiefly to know those birds that are taken at flight-time; because those taken at other seasons, sing soon after they are taken, or not at all. I cannot give any certain notes to know the cock from the hen, whilst nestlings; unless it be by that general remark, that the highest-coloured bird always proves a cock, and that the biggest, and longest bodied, and other marks before mentioned, will hold good in such young birds, as well as those that are full-feathered. This particular, indeed, is not very material, because so few are brought up from the nest; it being very difficult, with the utmost care that

can be taken, to raise them; either the cramp or scouring kills them, or they die in moulting.

Time and Manner of their building, &c.

IT is a very tender bird, and yet breeds early in the Spring, as soon as the Black Bird, or any other; the young birds being ready to fly by the middle of March. They build at the foot of a bush or a hedge, or in lays where the grass is wet or dry, under some turf to shelter them from the weather. Their nest is made of withered grass, fibrous roots, and other such like matter, with a few horse-hairs within-side at the bottom, being a small, and very indifferent fabric; it has hardly any hollow or sides, the bottom was almost upon a level with the top: the whole composition did not weigh a quarter of an ounce: the weight of the bird a little above an ounce; its length six inches, of which the bill is something above half an inch, and the tail two inches. She lays four eggs, of a pale bloom colour, beautifully mottled, and clouded with red, yellow, &c.

Of the Young, how to order them, &c.

THE Wood-Lark, as I said before, breeds very early in the Spring; her young ones are

tender birds, and generally four in number : if you are minded to bring them up from the nest, which you will find exceeding difficult to do, don't take them too soon, not before they are well feathered ; because, when they are too young, they are more subject to the cramp and scouring, which commonly kills them : put them into a basket with a little hay at the bottom, or some such thing, where they may lie clean and warm, tying them close down : feed them with sheep's heart, or other lean flesh meat, raw, mixed with a hard boiled egg, a little bread ; and hemp-seed bruised or ground, all chopped together as fine as it is possible to do it, and made a little moist with clean water ; every two hours, or oftener, give them five or six small bits, taking great care never to overload their tender stomachs. Let not their meat be too stale, dry, mouldy, or sour ; for your birds so fed, whether old or young, will never thrive.

The wild ones feed upon beetles, caterpillars, and other insects ; likewise upon seeds.

The Wood-Lark, as if sensible of his own melodious song, will take from no other, unless brought up from the nest ; then he may be taught the song of another bird.

*The Seasons for catching Wood-Larks with Nets,
and how to order them.*

FIRST, Branchers, which are birds that were hatched that Spring, are taken in June and July, with a net and a Hawk, after the same manner as I told you they took Sky Larks. You may find these birds harbouring about gravel-pits, upon heath and common land, and in pasture fields. For fear of the Hawk, they will lie so close, that sometimes they suffer themselves to be taken up with the hand. These birds soon grow tame.

The next season is for Michaelmas birds, which are taken with clap-nets in great numbers in September, and are counted better birds than what are caught at any other time of the year, because keeping them all the winter makes them more tame than birds caught in January or February, and will sing longer, eight or nine months in the year. Wood-Larks at this time commonly fly very high, therefore the highest ground is usually chose to lay the nets upon, likewise in a cart-way, or where a spot of earth is fresh turned up, or sometimes you may turn it up on purpose.

A third season for taking Wood-Larks is in January; what are caught at that time are very stout, good birds, and will sing in a few days

after they are taken, both stouter and louder than one taken in September, but not sing so many months: these are caught with the clap-net likewise, as they are at Michaelmas, and are found at that time of the year lying near a wood-side in pasture ground, where the sun rises.

Wood-Larks are sometimes taken when they are matched with their hen, which I think is wrong: they should by no means be disturbed in breeding-time, or when they are preparing for it: the end of January ought to be the latest time for taking these birds, because they are early breeding birds, that, if the weather be mild, couple at that time, or soon after; besides, the bird taken then is worth very little; 'tis true, he will sing almost as soon as you have him, by reason of his rankness in accompanying with the hen, but will soon fall off from his song, and you hear but little more from him all that Summer.

All the Wood-Larks, taken at different seasons, must be fed alike with hemp seed bruised very fine, and mixed with bread and egg hard boiled and grated, or chopped as small as possible. When he is first taken, he will be shy for a little time; you must sift fine red gravel in the bottom of his cage, and scatter some of his meat upon it, which will entice him to eat

fooner than out of his trough; you may leave that off when you find he eats out of the latter freely.

In a great measure order his diet as the Sky-Lark's; give him no turf of grafs, but often find red gravel in his cage; and when not well, instead of that, put mould full of ants, which is the most agreeable live food you can give him. Or give him meal-worms, or hog-lice, not more than two or three a-day: and let him have a little saffron or liquorice sometimes in his water. If he should scour, grate chalk or cheefe among his meat, and amongst his gravel likewise. He will eat any kind of flesh meat minced fine, and ordered as before for some other birds; which you may now and then let him have for change of diet, always leaving some of his constant meat in the cage at the same time, that he may eat which he will. A gentleman who is very fond of Wood-Larks, keeps several, and among them one he has preserved for six years, feeds them constantly with a composition of pease-meal, honey, and butter, mixed, rubbed into small granules, and dried in a dish before a fire. Of this meat he makes enough at one time to serve six or eight birds for six weeks or two months; which, if judiciously mixed and dried, will not spoil, even if kept longer.

An uncommon care should be taken of preserving this fine bird, because he is so very tender, in often shifting his gravel, victuals, water, &c. and some think it necessary to wrap a piece of cloth round their perches in very cold weather.

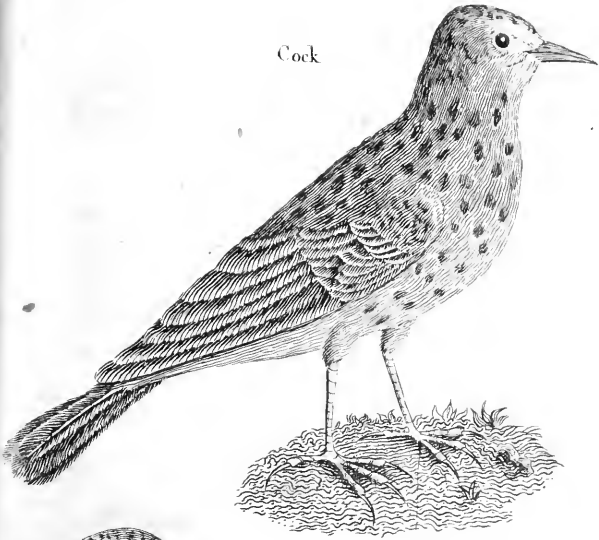
TIT-LARK.

Description and Character.

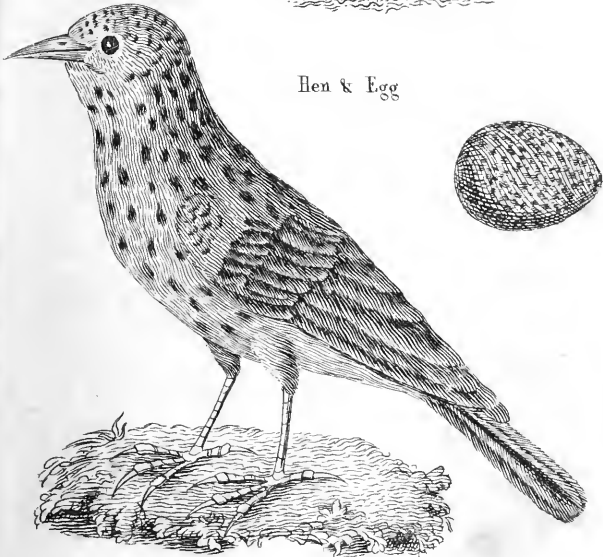
THE Tit-Lark is less by one half than the common Lark, being only six inches in length, and ten inches and a quarter in breadth: it is of a more greenish colour than a common Lark, but not so beautiful; the head is small, and the body pretty long and slender; the iris of the eyes is hazel, and the top of the head, and upper part of the body are of a yellowish green, with a mixture of black and ash-colour; the sides of the wings are of a dusky brown, with the edges and tops of the feathers somewhat greenish, some of a pale yellow, and others white; the breast is of a pale dusky colour, spotted with black, but the belly is whiter, and free from spots; the tail is above two inches long, and some of the upper parts of the outmost feathers are white, and others brown, with pale green edges; the feet are yellow, and the claws are very long, and of a pale dusky colour; they feed upon insects and seeds, like other Larks, but they build their nests with moss in low bushes, not far from the ground, covering them on the inside with horse-hair;

TIT - L A R K

Cock



Hen & Egg





they generally lay five or six eggs, of a dark brown colour, and the young are commonly hatched about the beginning of June.

Marks of the Cock and Hen.

IN this kind the cock is all over more yellow than the hen, but especially under the throat, on the breast, legs, and soles of the feet. In nestlings, they can't well be distinguished by their colours, therefore must wait till you hear them begin to record their song, which is the first surest sign of a cock-bird.

Of their Nest, &c.

THE hen Tit-Lark builds amongst grass, or in corn fields; her nest is small, pretty much like the Wood-Lark's: she lays five or six eggs of a dark brown colour, and has young ones fit to take towards the end of May.

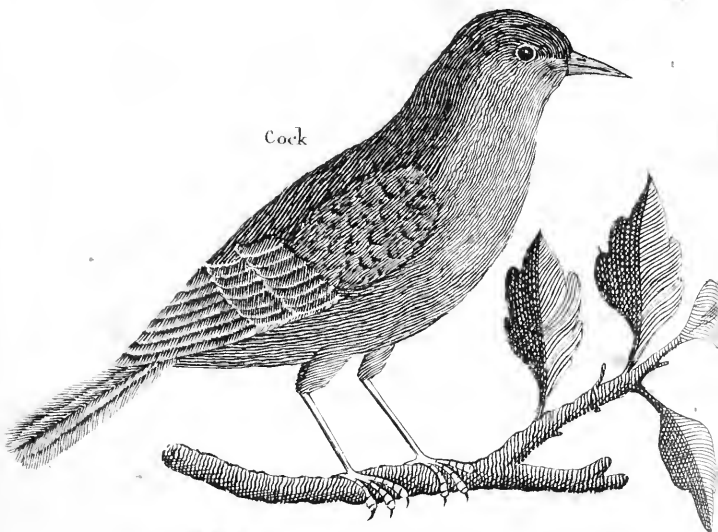
They may be brought up with the same meat and management as young Wood-Larks or Nightingales: but I think it hardly worth the trouble, because so many are taken, when they first come to visit our part of the world, both with clap-nets and lime-twigs, as they catch Linnets, Gold-Finches, &c. When you first take them, tie the ends of their wings with thread, to prevent their fluttering and beating

themselves against the cage, and they will soon grow tame. Feed them as you do the Wood or Sky-Lark: at first give them hemp-feed and bread, made very fine and mixed together; likewise ant's mould in their cage, meal-worms, &c.: flrew their victuals about their cage, to allure them to eat, and in three or four days they will take it freely enough; and will sing in about a week's time. Cage them single, in a cage something closer than the common Wood-Lark's.

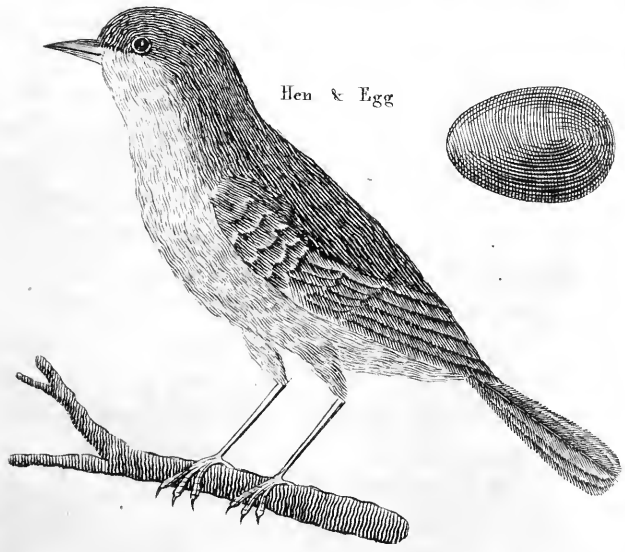


NIGHTINGALE.

Cock



Hen & Egg



NIGHTINGALE.

Description and Character.

THE Nightingale is the principal of all the English singing-birds, and is about the bigness of a Gold-Finch, but has a long body; it weighs about an ounce, and is in length, from the tip of the bill to the end of the tail, seven inches, but its breadth, when the wings are extended, is ten inches and a half; the bill resembles that of a Thrush, or Black-Bird, but there is no great variety of colours on the body, nor is this bird remarkable for its beauty; the upper parts are of a faint tawney colour, with a greenish cast, but the tail is more deep; the belly is all over white, and the feathers on the breast and throat, as well as under the wings, are darker, mixed with green; the bill is blackish, and the feet of a flesh colour, but the inside of the mouth is yellow. It breeds in the month of May, and lays four or five eggs, and it chiefly sings in the night time, but not close to the nest, for fear of discovering it. It haunts shady places, quick-set hedges, bushes, and small groves. There are no particular marks to distinguish the cock from the hen, only the colours

are more lively in the former. A Nightingale's nest may be found by observing the place where the cock sings, for the hen is never far off; or you may stick two {or three meal-worms on the thorns near the place most frequented by the cock, and then observe, when he comes to take them, which way he carries them, and by listening you will hear the young, while the old ones are about feeding them.

When you have found the nest, if the young ones are not fledged enough to be taken, you must not touch them, for then the old ones will entice them away: They should not be taken till they are almost as full of feathers as the old ones; they will refuse their meat, but you may open their bills, and give them two or three small bits at a time, and they will soon grow tame and feed themselves; they should be put, with the nest, into a little basket, which should be covered up warm, and they should be fed every two hours. Their food should be sheep's hearts, or other raw flesh-meat, chopped very fine, and all the strings, skins, and fat taken away; but it should always be mixed with hard hen's eggs; they should be put in cages like the Nightingale's back-cage, with a little straw or dry moss at the bottom; but when they are grown large they should have ant's mould; they should be kept very clean, like other singing birds, for otherwise they will have the

cramp, and perhaps the claws will drop off. In Autumn they will sometimes abstain from their food for a fortnight, unless two or three meal-worms be given them two or three times a-week, or two or three spiders in a day; they must likewise have a little saffron in their water. Figs chopped small among their meat will help them to recover their flesh. When their legs are gouty, they should be anointed with fresh butter, or Capon's fat three or four days together. If they grow melancholy, put white sugar-candy into their water, and feed them with sheep's heart, giving them three or four meal-worms in a day, and a few ants, with their eggs; they should also have saffron in their water.

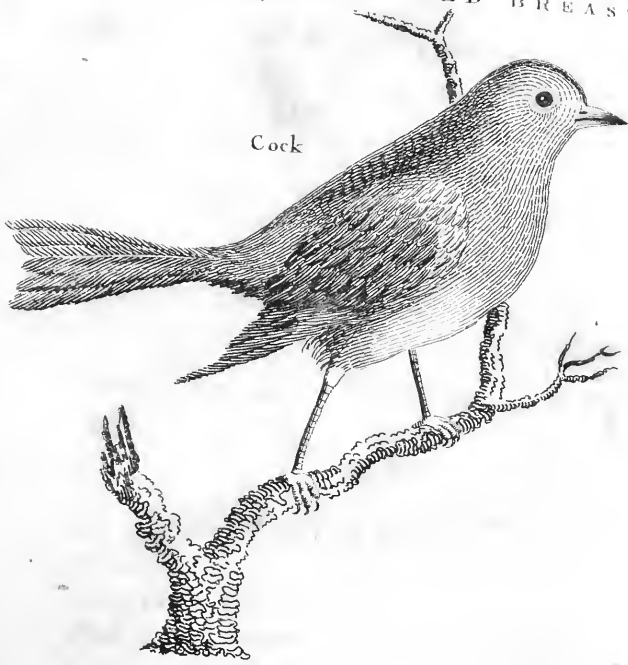
Those birds that are taken before the 23d of April are accounted the best, because after that they pair with the hens. They usually haunt woods, coppices, and quickset hedges, where they may be taken with trap-cages, baited with meal-worms; they should be placed as near the spot where the bird sings as you can, and before you fix the trap turn up the earth twice the breadth of the cage, because they will there look for food. They are also taken with lime twigs, placing them upon the hedge where they usually sing; and there should be meal-worms stuck at places to draw them into the snare. After they are taken, their wings should be gently

tied with thread to prevent their beating themselves against the cage. It should be first hung in a private place, that he may not be disturbed, and he should be fed every two hours at farthest, with sheep's heart and egg minced very fine, mixing it with meal-worms: however, his first food must be worms, ants, caterpillars, or flies: You must take the bird in your hand, and open his bill with a stick made thick at one end, giving him the insects, or four or five bits of food as big as peas; to entice him to eat, his common food should be mixed with ants, so that when he goes to pick the ants, he may pick up some of that with it.



ROBIN RED BREAST.

Cock



Hen



ROBIN-REDBREAST.

Description and Character.

THIS bird, denominated from its red breast, is so well known all over this kingdom, that a minute description of him is not necessary.

The eyes and upper part of the bill are encompassed with a fine deep red, or orange-colour, like that upon the breast; the upper parts of the body are of a dusky brown, shaded with a greenish olive colour, with a pale bluish line upon the neck; the belly whitish, the legs and feet of a dusky black.

This bird in some places is esteemed a very fine song-bird, and little inferior to the Nightingale; but in many other places very little notice is taken of him. The cock has a sweet melodious voice, so free and shrill, that very few birds can equal it. His own natural song, because it is an exceeding good one, is preferable to any that can be taught him.

In the Winter time, when there is scarcity of meat in the fields, to seek his food he will enter into houses with much confidence, being a

very bold bird, sociable and familiar with man, but not with any bird besides his own mate.

In the Summer, when there is plenty of food in the fields, and he is not pinched with cold, he will withdraw himself into the most desert places, where he generally builds his nest, being a solitary kind of bird, that loves to feed singly, and lives upon worms, ants, their eggs, and other insects, &c. Notwithstanding, these birds are said to withdraw from houses into the woods in the Summer-time, as indeed most of them do; yet there are a great many that breed and harbour about farm-yards and out houses all the year through.

Distinguishing Marks of the Cock.

THE cock may be known by his breast, being of a deeper red than the hen's, and the red going up farther upon the head, and some say by the colour of his legs, which are darker, and by certain hairs which grow on each side of his bill: the bright red breast is a mark that may be depended upon, the others do not always hold. The cock is likewise of a darker olive upon the upper surface of his whole body.

Time and Manner of building their Nest.

THE Robin breeds in the Spring, and commonly three times a-year, viz. April, May, and June. The hen builds her nest on the side of a ditch or bank, amongst thorns and briars, or hedges; likewise in the woods, which they haunt in Summer. Those that stay about farm-yards build in out-houses, and broken walls of old buildings; her nest is made of coarse materials, the outside of dry green moss, intermixed with coarse wool, small dry'd sticks, straws, leaves, peelings from young trees and other dry'd stuff, lined with a few horse-hairs, on which she lays five or six eggs, but sometimes no more than four, of a cream colour, sprinkled all over with fine redish yellow spots at the blunt end, so thick that they appear almost in one.

Of the Young, how to order them, &c.

You may take them at ten or twelve days old: if you let them lie too long, they are apt to be fullen, and consequently much more troublesome to bring up: put them in a little basket with soft hay at the bottom, and be sure they lie warm, especially in the night.

Feed them with sheep's heart and egg, or other lean flesh made into a soft paste, as ordered for young Nightingales: let their meat be minced very small, well cleansed from skin, sinews, fat, or strings, giving them but little at a time, for if you overload their tender stomachs it will disorder the birds.

When you find them begin to be strong, put them in a cage like the Nightingale or Wood-Lark, which should be closer wired, and let them have dry moss or fine gravel at the bottom, and in all respects keep and order them like the Nightingale. When they feed themselves, you may try them with Wood-Lark's meat, because some of these birds like it better than the Nightingale's. I think both together agree best with them; for they love variety of food: they are also great lovers of mould full of ants or other insects at the bottom of their cage.

Their Diseases and Cures.

THE want of keeping these birds clean and neat often occasions the many diseases they are subject to and makes them never thrive nor delight in themselves.

This bird is very subject to the cramp, and a giddiness of the head, which makes him often fall off from his perch upon his back, and it

is present death, unless he has some help speedily given him.

The best methods to prevent it are, to keep him warm and clean in his cage; that his feet be not clogged, whereby the joints are frequently taken off, and the dung is so fast bound on, that it makes his nails and feet rot off, which takes away the very life and spirit of the bird.

If you perceive him drooping and sickly, give him three or four meal-worms, or worms taken out of pigeon-houses, and a few spiders, which will purge and cleanse him well, and it will mightily refresh him.

But, for the giddiness of the head, give him six or seven ear-wigs in a week, and he will never be troubled with it.

If you find he has little appetite to eat, give him, now and then, six or seven hog-lice, which may be found in any piece of old rotten wood, and let him never want water that is fresh, two or three times a-week.

There are many kinds of insects that birds will eat greedily, and very probably would relieve them under such maladies, could they be conveniently procured at all times, such as young smooth caterpillars, (a Robin will not touch a hairy one) some sorts of spiders, ants, &c. but there is no insect that is more innocent, or agrees better with birds in general, than the

meal-worm, which may be had with little trouble at the meal-shops almost at any time.

Above all, to prevent these diseases, be sure to keep them very clean and warm, always putting soft dry gravel in the bottom of their cages, taking care never to let them want fresh water and wholesome food.

And to make your Robin chearful, give him once a-week in his water a blade or two of saffron, and a slice of liquorice, which will make him long-winded, and help him very much in his song.

Notwithstanding the above directions for bringing up this fine bird, considering they are very tender, and not easily raised, I would rather advise you to catch one with the trap cage; and if you fall upon a young Cock-bird, he will sing in a few days, and be as good, if not better, than those brought up from the nest. Of this I have the experience just now in one taken with a trap, that sung his whole notes very freely within eight days after he was caught, and was as familiar as any bird brought up from the nest.

You are to feed and order them in every respect as before directed.

This bird, when taken old, if you find him fullen at first, and not to eat his meat so freely, then give him a few worms cut small amongst

a little fresh earth, crumbs of bread, &c. in the bottom of his cage, and in two or three days he will take his meat freely enough.

As to the extent of this bird's life, he seldom lives above seven years, by reason he is so subject to the falling sickness, cramp, and oppression of the stomach.

COMMON WREN.

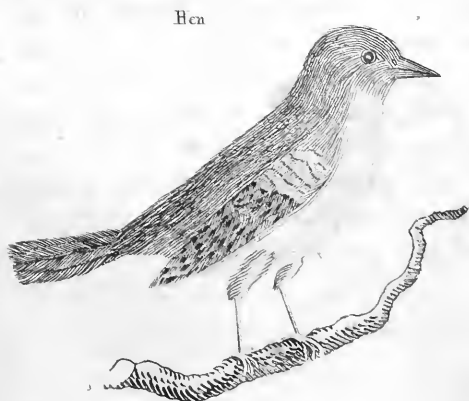
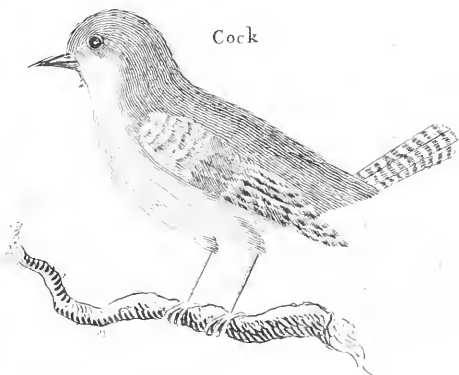
Description and Character.

EXcepting the Golden-crowned Wren, this is the smallest bird found in this kingdom: it weighs about three drachms; its length, from the point of the bill to the end of the tail, is about four inches.

It commonly creeps about hedges and holes, making but short flights, and, if it be driven from the hedges, may easily be tired and run down.

It will sit upon a barn or tree, &c. about farm-yards, where it mostly frequents, and sing exceeding fine: when kept in a cage, it will sing very sweetly, and with a higher and louder voice than can be imagined for its strength and bigness, being a very pleasant bird, that will sing a great many months in the year.

Some persons have kept these birds a long time in a cage, and have had them to sing as stout as if they were in the fields.





Distinguishing Marks of the Cock and Hen.

THE cock is of a dark colour; the head, neck, and upper parts of the body, are of a mix'd brown; the throat of paleish yellow; the breast more inclined to white, the belly of a dusky coloured red; the tips of the wings, and covert feathers of the tail, are beautifully variegated with a few yellowish and blackish spots upon them, and are brighter than those on the hen.

The hen-bird is all over of a reddish brown colour, excepting the lines across her tail and wings, which are black and reddish.

The bird with the largest eye is generally thought to be a cock. The difference in those birds, while young, can hardly be known, till the cock begins to record and sing.

Time and Manner of building their Nest, &c.

THE Wren has young ones in May; she builds her nest sometimes in the holes of old walls, and frequently in the eaves of thatched houses, such as stables, or other out-houses, but more commonly in woods and hedges. in a very artificial manner: it is of a sort of oval

form resembling an egg, covered over at top, and hath in the middle of the side a small round hole to go in and out at. The outside is of green moss and fog, the inside of hair, wool, and feathers, on which the hen lays sometimes to the number of fifteen or sixteen eggs; but many times hatches not half that number; they are very small white eggs, sprinkled all over with small red spots.

Of the Young, how to order and bring them up.

LET them be very well feathered before you take them; they are to be fed, and reared like the young Nightingales and Robins, giving them but little at a time, one or two very small bits.

When they are grown fit for a cage, let them have a large one, made with very close wire, with three sides wood, and one side wire; it requires to be lined with a cloth or bays for keeping them warm: though it is a very small bird, yet a small cage does not agree with it, nor with any bird whatsoever, though it is often practised.

In the Winter time especially, you must take care to keep them very warm and clean, giving them often dry gravel in their cage.

Keep them constantly to the Nightingale's food, and there is no question but they will answer your expectation.

If at any time they are sick, give them two or three flies, or a small spider or two, but not too many insects.

CRESTED, OR GOLDEN WREN.

Description and Character, &c.

THE Crested, or Golden Wren, is said to be the smallest bird found in this kingdom, not weighing more than three drams, and has a slender straight black bill; it has an exceeding beautiful small row of feathers on the top of the head, of a fine gold or orange colour; which it has a power of drawing together in such a manner, as entirely to conceal the little crest, by laying the feathers all flat upon the head, and likewise to raise them at pleasure; the form of them is long, as they take their rise from the base of the bill, and extend themselves to the back of the head, on each side of which there runs a black line: the eyes are encircled with white, the sides of the neck of a fine shining yellowish green, the breast of a dusky white; the back is of a greenish colour, with a mixture of yellow. The quill-feathers of the wings are of a dusky brown, with some of their edges yellow, others white, the tips of some of those next to the covert feathers are also white, the tips of some of the coverts being

CRESTED WREN





of the same colour, form a white line cross the wing. The tail is of a dusky colour, about an inch and half long, with some of the edges of the feathers of a yellowish green, the feet and claws are pretty near of the same colour.

They lay six or seven very small eggs, not larger than pease, and feed upon small insects.

They are found in some of the woods about Oxford, also in Warwickshire, about Middleton Park, and in several places in Wales. It is a beautiful, but not very common bird. It has sometimes been found in Scotland.

RED-START.

Description and Character.

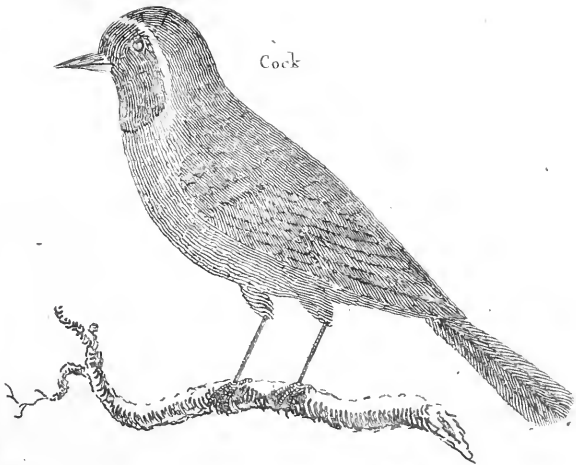
THIS bird is so named from its red tail, and is in size something less than the Robin-Redbreast.

It is said to be of so fullen a nature, that if taken old, and not brought up from the nest, it will not for some days look at its meat, and it will be so vexed, as is hardly credible: but, if brought up young, they become gentle and tame, being of a chearful spirit, and have a very pretty melodious kind of whistling song. It is thought, they come with the Nightingale to England in the Summer, and go away again in the Winter.

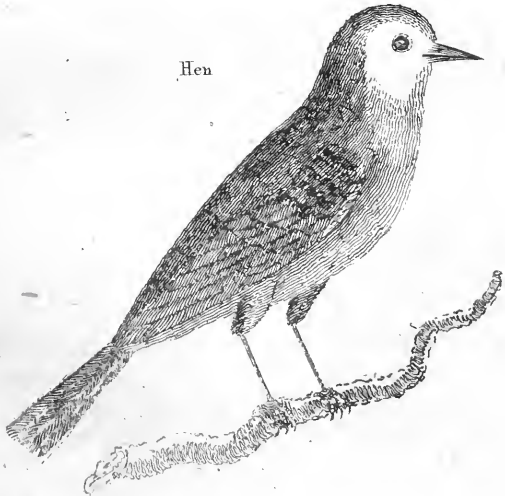
Distinguishing Marks of the Cock and Hen.

THE cock is very fair, beautifully coloured, and exceeding pleasant to the eye. His breast, rump, and tail, are of a fine red; the back, neck, and hind-part of the head, of a lead colour; the fore-part of his head, and throat, of a jet black, and he has a white mark upon his pole.

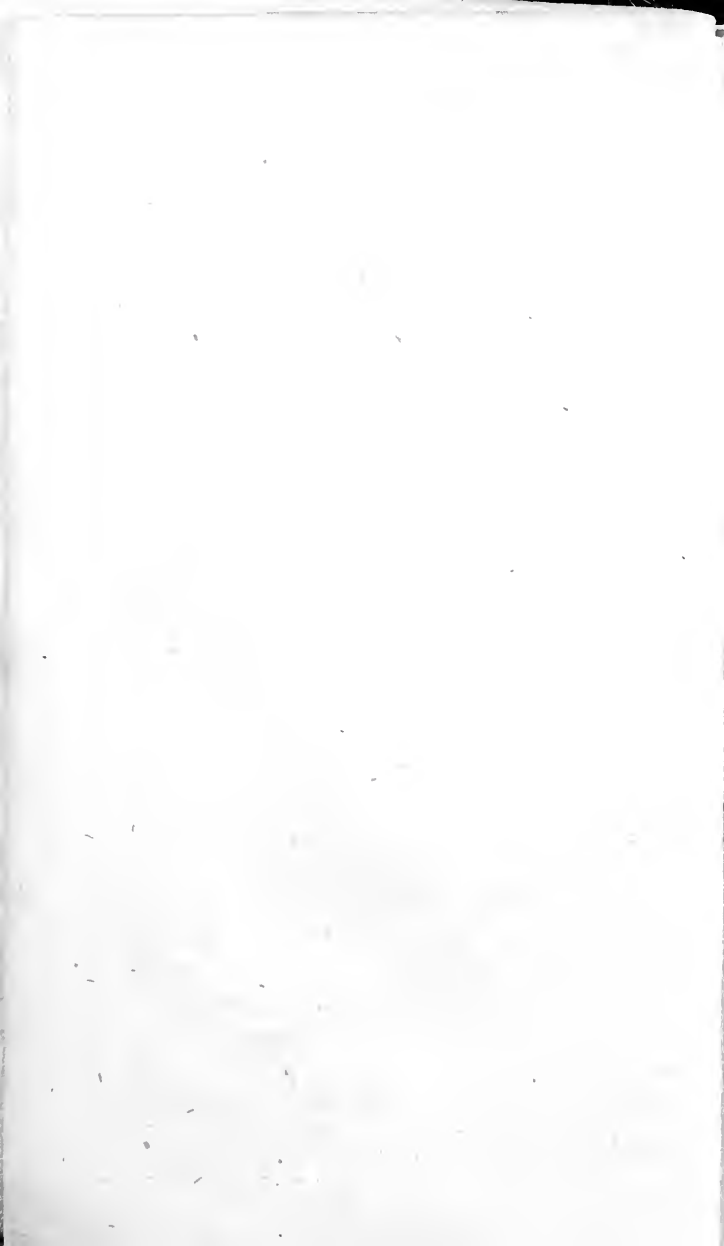
R E D S T A R T



Cock



Hen



The hen is a beautiful bird likewise; but partakes more of the colour of the Nightingale, with a red tail, something fainter than the cock's.

The cock is known at all times from the hen, by his black head; this mark being peculiar to the male only.

Time and Manner of Building their Nest.

THESE birds breed in May, and have young ones fit to be taken about the middle of that month. They commonly build their nest in holes of trees, or under house eaves, and make their nest with all sorts of things, such as dry grass, small roots of herbs, leaves, horse-hair, wool, and such as the place affords them. Their eggs are like these of the Hedge-Sparrow's, but of a paler blue, and not so big.

With regard to their nest, they are the shyest of all birds; for, if they perceive you to mind them when they are building, they will forsake their nest; and, if you touch any of their eggs, they never come to the nest any more; for you can scarce go to it but the hen will immediately spy you; and if she should chance to have young ones, she will either starve, or throw them out of the nest, and break their necks, as has been often found by experience.

Of the Young, how to order and bring them up.

THEY must be taken out of the nest at about ten days old; for if left there too long, they are apt to learn some of the old bird's temper, and be very fullen.

Feed them with sheep's heart and egg, minced very small, as the Nightingale or Robin, giving them but little at a time; for if you clog their stomachs, they'll presently cast their meat, and die in a short time.

When you perceive them begin to eat their meat, cage them singly, putting thereunto a pan; and about the sides of the cage, cease not, tho' they feed themselves, to give them a bit or two, three or four times a-day; for they will hardly eat their fill for a long time, when they begin to feed alone: but when you have used them to eat five or six days without feeding, give them some paste, and you will find them delight much therein.

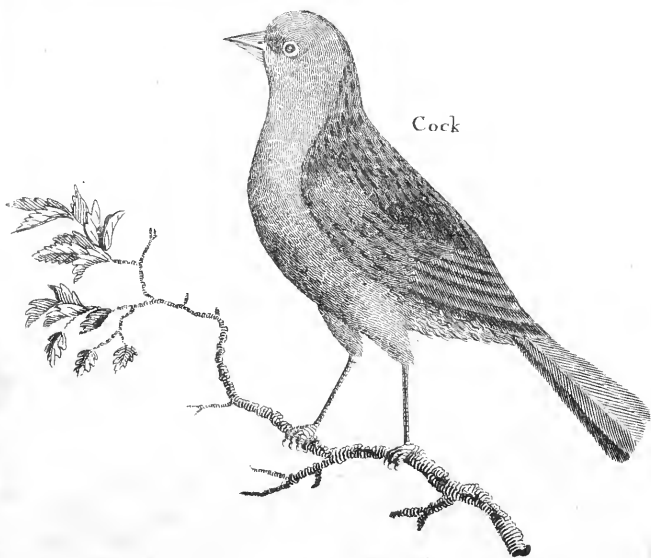
They may be kept in what cage you please; only let them be kept warm in the Winter, and they will sing in the night as well as the day; and will learn to whistle and imitate other birds.

When wild, they feed upon insects like the Robin, &c.

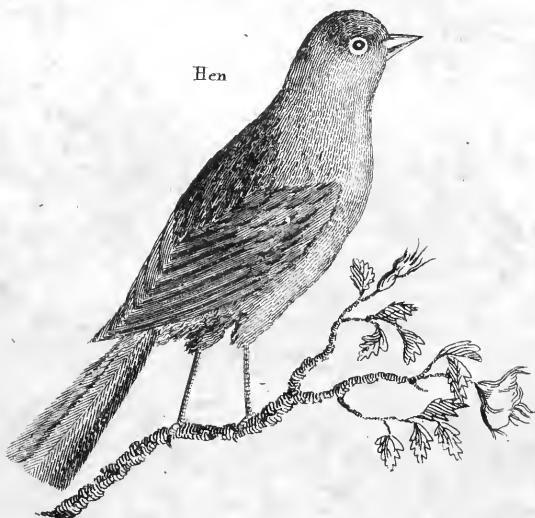


HEDGE SPARROW.

Cock



Hen



HEDGE-SPARROW.

Description and Character.

THIS bird is considerably less than the common Sparrow; it has a pretty long slender bill, of a dusky or bluish colour, and so well known, that a long description of him is unnecessary; there is hardly a boy that searches the hedges, but can give an account of its nest, eggs, &c.

This is not so despicable a bird as a great many imagine; for, if you mind its song, you will find very delightful notes in it, and not a little variety; they sing very early in the Spring, and are frequently kept in cages by curious persons, who value them much.

The Cuckoo, who builds no nest of her own, generally drops her egg in the nest of this bird, where it is hatched by the Hedge-Sparrow to the certain destruction of her own young.

Distinguishing Marks of the Cock and Hen.

THE cock's head is of a dusky-coloured brown, with a sort of bluish cast; the upper part of his body is of a dark brown, with a very small mixture, or rather shade of red; the breast of a bluish or lead colour, with a few small shady spots upon it; the belly more dusky.

The hen is known from the cock, being considerably paler upon the breast, and the colour upon her back more bright.

Time and Manner of their building, &c.

THEY have young ones generally about the latter end of April or beginning of May, and, as mentioned before, build their nest almost in every hedge, low and open, that it may be found with little difficulty. It consists chiefly of fine green moss, and the inside lined with a little hair, on which the hen lays commonly five eggs, much different from other birds, being of a pale blue, or sea-green colour.

Of the Young, how to order them, &c.

THESE birds may be taken at nine or ten days old, and fed with bread and flesh-meat,

chopped very fine and minced together, made moist, as for other birds; or you may bring them up with the Wood-Lark's victuals. They likewise feed upon small seeds.

Old or young birds of this kind become tame very quickly, and will sing in a short time after they are taken, if they have been taken at the latter end of January or beginning of February: they will feed almost on any thing you can give them.

The Hedge - Sparrow is a very tractable bird, and will learn to pipe, whistle, or imitate the song of almost any other bird, if brought up from the nest.

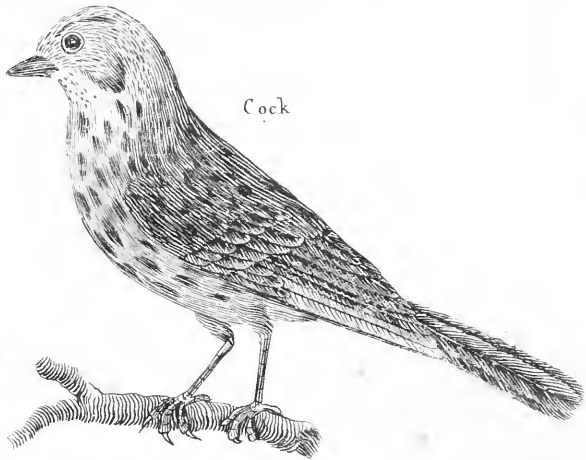
YELLOW-HAMMER.

Description and Character.

IT is equal to the Chaffinch in bigness : both cock and hen are beautiful birds ; and the cock will sing very prettily, when in the fields, but is not kept very commonly in a cage ; yet he is no contemptible bird ; besides his song, his fine feathers are enough to recommend him : a lovely yellow adorns his head, throat, breast, and belly ; his back and wings are pretty much like the Linnets. The hen is of a paler colour all over her body, and the parts that are of a fine yellow in the cock, in the hen are of a dirty green.

These birds build upon the ground, at the side of a river, pond, or brook ; they make a large, flat, ordinary nest, with moss, dried roots of grass, weeds, &c. with horse-hair intermixed ; more of the latter than I ever observed any other bird to make use of. She lays six or seven white eggs, veined and spotted with black. Her young ones are usually fit to take by the beginning of May ; you may let them be ten or twelve days

YELLOW HAMMER



Cock



Hen



old before you take them. Feed them with flesh meat minced very fine, as you prepare it for other small birds; or you may bring them up with the Tit or Wood-Lark's meat; they will eat likewise worms cut in small pieces, which food agrees very well with them.

These birds are common every where in England; for the most part, they abide on the ground, seeking their food there, of worms, seeds, and other things.

REED-SPARROW.

Description and Character.

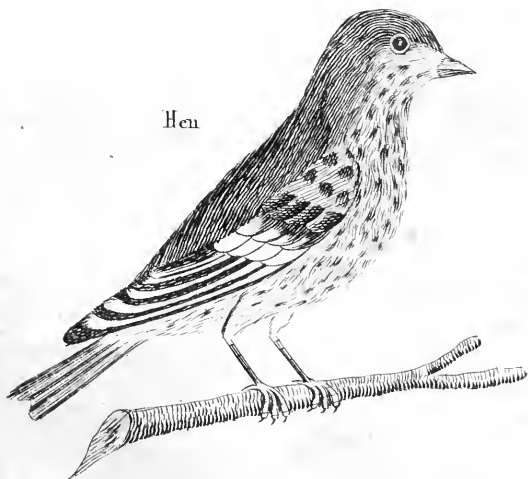
THIS bird in bigness is equal to the Chaffinch: the cock has a black head and throat: a ring of white encompasſes the neck: his breast and belly are white, spotted with reddish brown spots: the back of a dusky brown, with black spots: the pinion of his wing is of a reddish colour; the rest of the wing and the tail are of a dark brown; the tail is upwards of two inches long: the hen, as in most birds, is not so fair coloured: the ring about her neck is darker, and scarce appearing, and her head is not black like the cock's.

They frequent the reeds by the river sides, where they breed, hanging their nests between the reeds; they are chearful, merry birds, and sing finely, especially in the night. When we walk in summer time by the sides of the river, they generally afford an agreeable harmony. They are not kept very common in cages, therefore it is not necessary to dwell any longer upon this bird. Her eggs in colour are like the Hedge-Sparrow's.

REED SPARROW



Cock



Hen



DIRECTIONS

How to make a Paste for mixing with all Sorts of soft-beak'd Birds Meat; such as live on soft Food, viz. the Black-Bird, Thrush, Starling, Sky-Lark, Wood-Lark, Nightingale, Robin, Wren, &c.

TO make this Paste, take half a peck of the finest horse-beans, being very dry, and ground fine; then bould it through a fine boulder, such as is used for wheating flour; or, if your stock of birds do not require so great a quantity, take in the following proportion:

Of the said meal, two pounds, with one pound of the best sweet almonds blanched; beat these well in a mortar, as fine as possible; then put four ounces of fresh butter, that is entirely without any salt, into a sauce-pan well tin-
ned; mix all together, and set the pan over a clear fire, that the paste may not smell of smok, continually stirring of it whilst it stands upon the fire; then take four yolks of eggs, and a little saffron: when the butter is all melted, having some virgin's honey ready, drop in some by degrees, continually stirring it, to keep it from burning, and that all the ingredients may incorporate; then strain it through a drain-

er, or sieve, made with holes, such as will let the whole composition pass, which should be pretty thin; and, for the keeping of it, put it up in a pot of lime-ware, with a little melted clarified honey upon the top; then cover it close up, and so you have store of provisions for many months.

This Paste may be mixed with any bird-meat whatsoever, being a very strengthening cleansing diet, and is ready at all times when once made, and will continue good for six months.

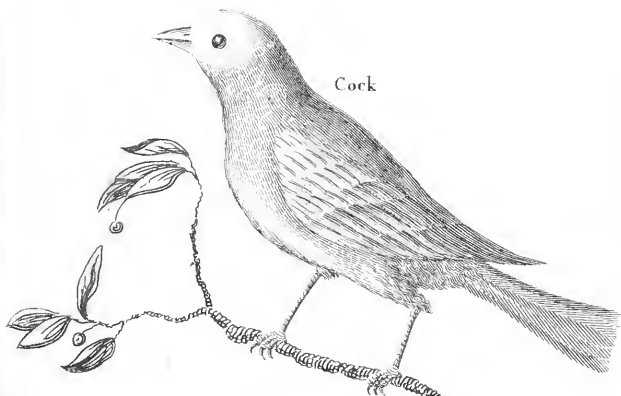
In the Winter time, take a pretty good quantity of saffron and mingle with the paste, for it is hot and opening, and will maintain the bird more cheerful and lively.

Many other sorts of paste may be made like this, of less charge; as, instead of almonds, to use walnuts, &c.



CANARY BIRD.

Cock



Hen



CANARY-BIRD.

Description and Character.

THIS bird has its name from those islands of the Atlantic sea, called the Canaries, from whence it was first brought into Europe. Canary-Birds are bred in large quantities, both for sale and amusement, in Germany, France, and England; and in each of those countries they have, by care, much improved the breed, beyond those now imported from the natural climate. They are of different colours, yellow, white, buff, gray, and green, with endless variety of combination arising from the different shades of colour in the parent birds. Those brought from Germany are generally variegated or mottled, and are the least valued, because the suffocating heat of the stoves, generally used to warm the houses in that country, renders the birds bred there tender and short-lived: German birds seldom living above a year or two in this country.

The cock of this kind is highly valued for its singing, having a very sweet note, which it

continues for some time in one breath, without intermission, and raises it higher and higher by degrees, with great variety.

The forepart of the head, the throat, the pinion of the wing, and rump of the cock, are of a brighter yellow than in the hen; which marks will hold good let them be of what kind they will; the cock is also bigger than the hen, and his carriage is also more sprightly and majestic; for he will often extend his neck and head in a very brisk lively manner. The hens do not sing, or so indifferently, it does not deserve the name of singing. Whenever the cock sings, his throat may be observed to swell and play all the while he is warbling, whereas there is no such motion in the hen.

Directions for choosing a Canary-Bird, and to know if he be in health.

THERE are two particular sorts of Canary-Birds known and esteemed among breeders, besides some varieties under each, which latter are not material to enter into. These are those birds which are all yellow, and those which are mottled, with a yellow crown: the former, in the breeding stile, being called *gay* birds, and the latter spangled or *fancy* birds. The fancy breed are esteemed the strongest, and have the boldest song, yet sometimes the difference

of their voice is not very observable. Careless breeders will often match a gay bird with a fancy bird, and then the produce, partaking of both kinds, are called *mules*; being foul irregular birds, of no value for feather, though they may prove as good as any, merely for singing. The choice of birds for breeding will be considered under the next article.

For health, take a bird that appears with life and boldness, standing like a Sparrow-Hawk, not subject to be scared at every thing that starts: therefore, when you observe him, approach not too near the cage, lest by a motion of the hand, or otherwise, you disturb him; it will make the bird, though not well, appear sprightly, and in health for a little time; but if you stand quiet, and at a proper distance, you may soon discover whether it is the effect of surprize or the natural spirit of the bird: if he stands up boldly, without crouching or shrinking his feathers: if his eyes look chearful, and not drowsy, they are good signs of a healthful bird: but, on the contrary, if he be apt to clap his head under his wing, and stand all of an heap, you may be sure he is not well.

Observe likewise his dung; which, when he is in perfect health, will be round and hard, with a fine white on the outside, and dark within, and will quickly be dry. If he bolts his tail like a Nightingale after he hath dunged;

or if his dung be very thin, or of a slimy white, with no blackness in it, you may conclude he is a sick bird.

The next thing we are to regard in choosing a Canary-Bird is the goodness of his song. Some of these birds will open with the sweet of the Nightingale, and run through several of that bird's fine notes, and end in the Tit-Lark's song; and some will sing only the Tit-Lark's. Others will begin almost like a Sky-Lark, and by a soft melodious turn of the voice, fall into the Nightingale's sweet and jug, whisking and chewing after a very delightful manner. The birds that have such a curious change of harmonious notes want no recommendations; every body must be sensible that they are valuable. There are others of this kind that sing with so much force, they even deafen the ears of the hearers with their shrillness; many persons are delighted with this kind of singing; others are offended at it. Therefore, before you purchase the bird, hear him sing in a single cage; and as you have directions to know a cock-bird, and when he is in health, as to the colour and song, please your own fancy.

To order them in Breeding, &c.

IF you propose to breed gay birds, choose your cock and hen of a clear uniform yellow

colour, without being spotted with foul feathers; for these foulnesses indicate a mixture in their blood, and that the breed has some time or other been crossed.

Breeders of fancy birds are still more curious as to feather; there being several subscription societies in London which raise annual premiums for the finest birds, and who have a pattern bird beautifully engraved and coloured, as the standard of perfection, with his various characters explained in a technical stile underneath. But as a person ought to be a connoisseur before he undertakes to raise prize birds, it may be sufficient to observe, that no excellence in the feathers of fancy birds is any security for breeding equally perfect young ones from them, as defects will often appear in some respect or other: while, on the contrary, two indifferent birds may sometimes produce a very fine one. The principal test of a good fancy bird is the having a clean cap; that is, the crown of his head, defined by a horizontal line at the level of his eyes and beak, is to be of a clean yellow or white, without being broke or spotted with foul feathers; and a single feather of this kind is a drawback from his perfection; though this degree of perfection is seldom found. Add to this, that his back, wings, and tail, ought to be as clear from yellow or white feathers. The finer he is mottled on the back, and clearer yel-

low he is on the belly, the handsomer he will be esteemed.

These general characters are equally requisite in the hen as in the cock; besides which, the breeder is to be informed of a casual variety in fancy birds, which are all distinguished either as *mealies* or *junks*: the meally birds being those whose crown and bellies are of a clean white or pale yellow; and the junks, whose crown and bellies are of a deep yellow. It is a standing rule among good breeders never to match two meally or two junk birds together; and skillful bird-fanciers will decide at once upon a bird so bred.

The fine spangled sort above-mentioned, commonly called French Canary-Birds, and the meally ones, are the best to breed with for those who are very curious; because a spangled cock with a meally hen will produce a more regular spangled feather than if cock and hen were both spangled, for then they would breed too high upon the yellow.

Pair such a spangled cock with a meally hen in a cage by themselves, rather than a meally cock with a spangled hen; because the young ones take mostly after the cock-bird in their feathers.

Gray birds will breed full as well as any, for those who care not what coloured birds they

breed, so they have but young ones; they being the best nurses.

The white birds are quite the worst to breed with, being very rarely good nurses; and therefore, let the birds you breed with be English-bred birds, and not from the Germans, their birds agreeing but indifferently with our climate to breed in.

The Canary-Bird is a gentle familiar animal, and will breed very kindly under due management: that is, if they are provided with convenient cages, proper necessaries, are kept clean, and are not interrupted from time to time by the prying eyes of impertinent curiosity, or officious care. The hazards of their own mismanagement admitting of no comparison with the dangers they are exposed to from over-nursing. In short, the best general rule that can be given, is to supply them with every necessary at due times, and then to interfere as little as possible in their domestic œconomy. The hens generally sit four times in a season; but if a hen sits upon a due number of eggs three times, she should not be permitted to build again, without she appears yet strong and hearty; for they will sometimes die on the fourth nest during laying, or fall so weak as not to complete the sitting.

About the beginning of March, if the Spring be mild, or later, in proportion to its severity,

you may put your birds together in their breeding cage; and the larger it is, the more convenient it will be for the birds to exercise themselves; the common sized cages being too small for the purpose. If you breed with several pairs flying loose in a room, it will be necessary to pair them in small cages for a fortnight or so, that they may contract a familiarity and attachment before they are turned out promiscuously. Never attempt to breed with two hens in one cage, for their jealousy of each other will disappoint your expectations from both. There should be two nest boxes in every cage; for though the young ones generally leave the nest in fourteen days, the hen sometimes begins another nest before they are out; and if she has not a box provided, will build upon the young birds and smother them.

It may not be amiss also, as the hen is commonly attached to that corner of the cage where she first sits, to slide the nest of young birds farther in, when she inclines to build again, and put the empty box upon the spot from whence the nest is removed.

If you would have young ones from any particular cock or hen, you must put such a pair in a cage by themselves twelve or fourteen days. The first day or two, the hen being shy, they may perhaps seem not to agree, but they will soon make it up and be better acquainted, which

you will know by their feeding one another ; which, when you see they often do, you may turn them into your breeding place amongst the rest, and they will keep constantly to each other, though amongst seven or eight pairs of other birds.

In order to produce variety, or any particular excellence of colour or form, the generality of breeders pair thus in cages by themselves all the couples they intend to breed with, before they turn them into the breeding place ; but if any person does not care to be at that trouble, or is indifferent about the colour of the brood, they will match themselves very well ; only in this case the chief pleasure of breeding is abandoned.

What sort soever you breed with, be sure to choose the largest and longest feathered birds of the sort you can get, and never to attempt breeding with a sickly bird, as it will turn out the certain loss of a pair. If your cock or hen is but small, then match your small one with a larger ; and observe, that it is better the hen be the larger of the two, to cover well her eggs.

A hen that has already bred is much better to breed with than a hen of a year old ; because such old hen will sit closer and surer, and feed her young much better (which is very

valuable) than a young giddy hen ; but a cock of a year old is as good for breeding as any.

As soon as your birds are put together, you must begin to feed them with hard egg, and bread grated and mixed together. This should be given fresh every day, in the proportion of half an egg, with about three or four times the same quantity of bread, to every pair, throughout the season, beside their ordinary diet of rape and canary-feed. With this they should also have a due supply of chick-weed, ground-fel, plantain, or cos lettuce leaves, as the season affords ; and a pan of clean water to wash themselves in at pleasure. The cage-makers supply all the proper furniture for these occasions.

I would recommend to such persons as breed only a few birds for their diversion to use large cages, it being much the best way : but these cages must always stand in one place ; for if they are shifted about, the birds will never settle to their business. Those who intend to breed a number should prepare a room for that purpose.

Let the situation of it, if possible, be such, that the birds may enjoy the benefit of the morning sun, which is both delightful and nourishing ; and let the windows be covered with wire-work, that they may have the advantage of the air in good weather, which will make them thrive the better : keep the floor of the

room clean, sometimes sifting fine-dry gravel or sand upon it, and often removing the dung and other foul stuff. You must take care to fix nest-boxes and back-cages, in every convenient corner and place of the room, at least twice the number that you have birds, that they may have the more variety to chuse a lodging to their minds; for some love to build high, and some very low, some in a light place, and others will chuse a dark place.

The best way to give birds water that breed flying, is in a bottle turned with the mouth downwards into a kind of gallipot with holes in the sides, made for this purpose, and to be had at the earthen-ware shops.

You must put their feed in a trough or bin, with their other food, upon a table or stool, or hang it up by the wall.

There ought to be two windows in the room, one at each end, and several perches at proper distances for the birds to settle upon, as they fly backwards and forwards. You may set likewise a tree in some convenient place of the room, to divert the birds, and some of them will like to build in it: you must observe that their nest is secure from falling through, and if in danger, to tie the tree closer to prevent it, and they will hatch there as well as in any other place. Remember not to put too many birds

together, eight or ten pair are enough for a middling room.

When your birds are first paired, as I directed before, turn them into this room; where they will live, as it were, a conjugal life; and notwithstanding there are several other birds in the same room, one cock and one hen, as they first coupled together, will keep constant to each other, and both concur and assist in sitting and feeding their young: for the cock-bird takes his turn in building the nest, sitting upon the eggs, and feeding the young, as well as the hen.

Of their Nest, and how to order the Young.

You must furnish the birds with stuff for making their nest; such as fine hay, elk's hair, and moss: but give them no wool or cotton; for their feet are apt to tangle in it, so that when they get off the nest, they are in danger of dragging it out after them. Let all these materials be thoroughly dry; then mix and tie them up together in a net, or put them in a rack, so that the birds may easily pull it out as they want it; and let it be hung in proper places in the room for that purpose.

They build a pretty neat nest, about which they will sometimes be so industrious, as to begin and finish it in one day, though they are

generally two or three days in making their nest. The hen lays commonly four eggs, and sits thirteen days.

When the young are hatched, leave them to the care of the old ones to nurse and bring up, till they can fly and feed themselves. The hen, as I said before, will sometimes build again before the former brood can shift for themselves; the care of which she transfers to the cock-bird, who will feed and nurse them himself, supplying the care of both parents, while she brings on and attends her new progeny.

When the young Canary-Birds can feed themselves, take them from the old ones, and cage them. If they are flying about the room, you may catch them with a small hoop-net at the end of a long handle, made for that purpose. They may soon be weaned from their soft meat to feed and greens.

Of the Canary-Bird's Diseases, and their Cures.

BESIDES their moulting, which is common to all birds, they are subject to the following disorders: The first is a surfeit, occasioned either by a violent cold, or from eating too greedily upon greens, especially a rank sort of chickweed with broad-leaves, and without seeds, which is hurtful both to old and young birds, it being very apt to surfeit the latter. To dis-

cover when the bird has this distemper, blow the feathers on the belly, and you will perceive it swelled, transparent, and full of little red veins (all its little bowels sinking down to the extreme parts of its body) and if far gone, black, which generally brings death. The cure of this disease, if taken in time, is to keep him warm, and give him whole oatmeal amongst his feed for three or four days, in order to cleanse him; and put liquorice in his water, but if he is too loose, instead of oatmeal, give him maw-feed and bruised hemp-feed, being more binding; and, at the same time, let him have a little saffron in his water; or you may boil milk and bread, with a little maw-feed in it; it is very good for the bird at such a time.

Another malady the Canary-Bird is troubled with, is a little pimple on his rump, called the pip; it will generally go away of itself, but if at any time it is bad, and will not, when it is ripe, let out the sickly matter with the point of a fine needle, squeezing it all out with as much gentleness as you can; after, take a bit of loaf-sugar, moisten it in your mouth, and put it on the sore, which will heal it.

A third disease is a kind of yellow scabs that come about their head and eyes, which sometimes swell, and are full of matter; anoint these places with fresh butter or lard, or the oil of sweet almonds; those things will cure it, un-

less it spread, then nothing but time and cooling food will carry it off.

Canary-Birds are sometimes seized with fits, and drop from their perches to the ground, where they tumble in convulsions. In this case, if they are discovered in time, and plunged in a pan of cold water, they will generally recover.

The last thing that I shall take notice of is his moulting. You may know when this comes on by the bird's appearing rough, melancholy, and often sleeping in the day with his head under his wings, and the cage being covered with down and small feathers; for the young ones, the first year, cast only their down and small feathers, and the second their tail and wing-feathers.

Careful nursing is the principal means to preserve birds under this natural malady; therefore, be sure to keep him warm; set him sometimes in the sun, when it shines powerfully, to bask himself, it will comfort him very much, always taking care to keep him from cold or wind, which are very prejudicial to him at such a time; let him have good nourishing food, beside his common seed; as scalded bread with the water squeezed out, and maw-feed: you may also put a little saffron in his water. If the weather is very hot when the birds are in their moult, give them liquorice in their water instead of saffron, and plantain or lettuce-

feed; but not any of that meat if it be cold weather.

In the Winter-time, when green meat is not to be had, or the season is too cold to allow it, a little scalded bread, with the water squeezed from it, will be an agreeable regale to your birds once a-week, and keep their bodies from being too much bound up by their dry feed. A slice of a ripe apple or pear, now and then stuck between the bars of their cage, is also a feast that their songs will thank you for.

Keep always a lump of chalk (too big for the birds to pull about) in your breeding place; they will often peck at it, and it will absorb and destroy many sharp humours, which cause distempers in them; and therefore chalk is as wholesome for them as it is for the heart-burn, and some other illnesses in the human body.

Buffon's *History of the Canary-Bird.*

If the Nightingale is the chantress of the woods, the Canary-Bird is the musician of the chamber: the first owes all to nature; the second derives something from our arts: with less strength of organ, less compass of voice, and less variety of note, the Canary-Bird has a better ear, greater facility of imitation, more memory; and as the difference of genius, especial-

ly among the lower animals, depends in a great measure on the difference that exists among them with regard to the perfection of their senses, the Canary-Bird, whose organ of hearing is more attentive, more susceptible of receiving and retaining foreign impressions, becomes accordingly more social, more tame, and more familiar: it is capable of gratitude and even of attachment; its caresses are endearing, its little humours are innocent, and its anger neither hurts nor offends. Its natural habits likewise attach it to us the more; it eats seeds like our other domestic birds; it is more easily bred than the Nightingale, which lives on flesh or on insects, and which can be reared only with prepared food. Its education is more easy and more successful; we breed it with pleasure, because we are able to instruct it: it leaves the melody of its natural note to listen to the harmony of our voices and instruments; it applauds, it accompanies us, and repays the pleasure it receives with interest. The Nightingale, more proud of its talent, seems willing to preserve it in all its purity; at least, it appears very little to value ours; and it is with the greatest difficulty it can be taught to repeat any of our airs. The Canary can speak and whistle; the Nightingale despises our words as well as our song, and never fails to return to the warbling of its own wood-notes wild. Its pipe is a master-

piece of nature which human art can neither alter nor improve; that of the Canary-Bird is a model of more pliant materials, which we can mould at pleasure. This last, therefore, contributes in a much greater degree to the comforts of society; it sings at all seasons; it cheers us in the dullest weather, and even adds to our happiness; for it amuses the young and delights the recluse, it charms the tediousness of the cloister, and exhilarates the soul of the innocent and the captive; its little amours, which we can contemplate while we make it breed in our cages, have a thousand times rekindled the dying flame of love in hearts where it seemed to have been extinguished. Is not this doing as much good as our Vultures do harm?

The happy climate of the Canary islands seems to be the native place of this charming bird, at least it seems there to attain its highest degree of perfection; for we know that there is in Italy a species much smaller than that of the Canaries, and in Provence another almost as large: both of these are wilder, and may be considered as the stocks of some tamed race. These three birds will breed in a state of captivity; but in their native regions they seem to propagate without intermixture. They therefore form three permanent varieties, which it is proper to distinguish by three different names, that they may not be confounded. The large.

one was called *Cinit* or *Cini* in the days of Belon, and in Provence it retains the name of *Cini* or *Cigni* to this day. The least one is called *Venturon* in Italy.

The *Venturon* is found not only in Italy, but in Greece, in Turkey, in Austria, in Provence, in Languedoc, in Catalonia, and probably in all the climates of that temperature. There are, however, certain years in which it is very rare in our southern provinces, particularly at Marseilles. Its song is agreeable and varied; the female is inferior to the male both in song and plumage. The form, colour, voice, and food, of the *Venturon* and Canary-Bird, are nearly the same, only the *Venturon* is smaller, and its notes are neither so fine nor so clear.

The *Cini* of Provence is larger than the *Venturon*, and has a louder note: it is remarkable for the brightness of its colours, and for the strength and variety of its song. The female is somewhat larger than the male, has less yellow in its plumage, does not sing so well, or rather answers him as it were only by monosyllables. This bird feeds on the smallest seeds he can find in the fields; he lives long in a cage, and seems to delight in being placed near the Gold-Finch: he listens and borrows some of the other's notes, which he incorporates with his own song. It is found not only in Provence, but in Dauphiny, at Geneva, in Switzerland,

Germany, Italy, and Spain. It is the bird known in Burgundy by the name of the Canary. It builds upon the osiers planted along the banks of the rivers; and its nest is formed of hair within and moss without. It is pretty common in the environs of Marseilles and in the southern provinces of France, but rare in the northern. M. Lottinger says, that in Lorraine it is a bird of passage.

The prevailing colour of the *Venturon*, as of the *Cini*, is a yellowish green on the upper part of the body, and greenish yellow on the belly; but the *Cini*, which is larger than the *Venturon*, likewise differs from it in having brown spots, which are longitudinal on the upper part of the body, and waved on the under; while in our climates the ordinary colour of the Canary-Bird is a uniform citron yellow over the whole body even on the belly. This however is to be understood only of the extremities of the feathers, all the other parts of them are white. The female is of a paler yellow than the male. But this citron colour, inclining more or less to white, which the Canary-Bird wears in our climates, is not its colour in its native place, and it varies according to the temperature of the country it inhabits. "I have observed," says one of the ablest Naturalists *, "that the Canary-Bird, which becomes white

* M. Adanson, Voyage au Senegal, Page 13.

in France, is at Teneriffe almost as gray as a Linnet; a change proceeding I suppose from the coldness of the climate." The colour may alter likewise from diversity of food, from captivity, and especially from intermixture with other species. At the beginning of this century, bird-fanciers reckoned, in the single species of the Canary-Bird, no less than twenty-nine varieties, all so distinguishable as to be easily pointed out. The original stock of these twenty-nine varieties, is the common grey Finch of the Canary islands. All those that are of other uniform colours have received them from difference of climate: those with red eyes are generally more or less inclined to absolute whiteness, and those with different colours are varieties rather fictitious than natural.

Besides these differences, which appear to be the first variations from the pure stock of the Canary islands when transported into other countries; and besides some new races which have appeared since, there are other varieties still more apparent, arising from a mixture of the Canary-Bird with the Venturon and Cini; for these birds may not only be made to pair and breed, but their young, which are generally considered as mules and sterile, are notwithstanding mongrels that are capable of propagating their race. It is the same in the junction of the Canary-Bird with the Siskin, the Gold-

Finch, the Linnet, the Yellow-Hammer, the Chaffinch; it is even said that it will produce with the Sparrow. These species of birds, although very different, and to appearance very remote from that of the Canary-Bird, will, notwithstanding, unite with it and breed, if proper care and precaution be used in pairing them. The first thing necessary is to separate the Canary-Birds from all those of their own species; and the second is, to employ the female rather than the male. I have been assured that the hen Canary-Bird will produce with all the above-mentioned birds; but it is not equally certain that the cock will unite with the females of those birds. The Siskin and the Gold-Finch are the only ones that seem to have their fertility with the cock Canary-Bird authenticated. The following was written to me on the subject by a friend of mine, a man of experience and probity:

“ I have these thirty years amused myself in rearing a number of small birds, and I have particularly attended to the method of breeding them; it is therefore from repeated experience and observation that I am enabled to assert the following facts. When a person wishes to pair the Canary-Bird with the Gold-Finch, he must take young Gold-Finches, of ten or twelve days old, from the nest, and put them in a nest with Canaries of the same age. He must feed them

together, and leave them in the same cage, accustoming the Gold-Finch to the same food with the Canary-Bird. It is usual to put a cock Gold-Finch to a hen Canary-Bird, as they pair much more easily, and prosper better than when a hen Gold-Finch and cock Canary-Bird are associated. It must however be observed, that the brood in the first case is later, because the cock Gold-Finch does not pair so quickly as the cock Canary. But when the female Gold-Finch is put to a male Canary-Bird, the pairing takes place much sooner. To succeed, a male Canary-Bird is never to be put into a cage where there are females of its own species, for then it will prefer these to female Gold-Finches.

“ With regard to the union of the male Canary with the female Siskin, I can vouch that it prospers exceedingly well. I have had in my aviary these nine years, a female Siskin which never failed to have three broods the first five years, and all these prospered; for the last four years she has had only two broods. I have other birds of the same species of Siskin, which, without having been bred up together, or placed apart, have paired with Canary-Birds. The male or female Siskin is merely put into a room with a good number of those birds; they will soon be coupling at the same time with other Canaries; while the Gold-Finch only couples

with the Canary-Bird when in a cage, and then too only when there is no bird there of its own species. The Siskin lives as long as the Canary-Bird, it accustoms itself to the same food with less repugnance than the Gold-Finch.

I have also put Linnets and Canary-Birds together; but they will seldom breed except the cock Linnet be put with the hen Canary-Bird; the female Linnet will not even make a nest, but drops a few eggs in the cage, which are generally addle. I know this by experience, as I have often made the hen Canary-Bird sit on them without effect.

“ The Chaffinch and Yellow-Hammer are with great difficulty made to pair with the Canary-Bird. I left a female Yellow-Hammer with a male Canary for three years, the hen laid only addle eggs: it is the same with the female Chaffinch; but the cock Chaffinch and Yellow-Hammer with the hen Canary-Bird have produced some fertile eggs.”

It follows from these facts, and some others which I have collected, that among all these birds the Siskin alone will breed with the Canary-Bird equally well, whether male or female: the hen Canary-Bird produces, likewise, easily enough with the male Gold-Finch; not quite so easily with the male Linnet: and, lastly, it will breed, though more difficultly, with the males of the Chaffinch, the Yellow-Ham-

mer and Sparrow, while the male Canary is incapable of fecundating the females of any of these last. Nature is therefore more ambiguous and less constant, and the mould of the species less firm in the female than in the male: the latter is the true model; its structure is stronger than that of the female, which is subject to various modifications and alterations by a mixture with other species.

The first variety which seems to constitute two distinct races in the species of the Canary-Bird is formed of the variegated and the plain, (or the spangled and gay birds, as they are called in London.) The white are never variegated, neither are the citron coloured: but when these last have attained the age of four or five years, the extremities of the wings and tail become white. The grey are not of an uniform colour; on the same bird there are feathers more or less grey; and in many of these birds the grey is lighter or darker, more inclined to the brown or the black. The agates are of an uniform colour, but there are some where the agate colour is lighter or darker. Those inclining to a cream colour are still more uniform; the yellow is constant both in the same bird, and in the different individuals. In the variegated, or spangled birds, those that are of a jonquil yellow are tinged with black, and there is generally a spot of black on the

head. There are variegated individuals with all the simple colours we have mentioned, but those of the jonquil colour only are variegated with black.

When individuals of an uniform colour are paired together, their young are of the same colour: a cock and hen that are grey generally produce grey birds: but if a male grey is put to a female white, or a male white to a female grey, the brood will be more beautiful than the parents; and as the numbers that may be crossed by such combinations are inexhaustible, we can at all times produce varieties in shade and tint that have not before appeared. The mixtures that may be made of the spangled birds with those of an uniform colour increase still more the number of combinations that may be produced; and thus varieties in the species may be multiplied to infinity. It likewise often happens, that without the assistance of the fancy-birds, we have pretty little variegated birds which owe their beauty to the mixture of the different colours in their parents or their progenitors, some of which, either on their father or mother's side, may have been variegated.

With regard to the mixture of other species with the Canary-Bird, I have collected the following observations: Of the whole species, the Cini or green Canary has the strongest pipe; it is the most vigorous and most ardent for pro-

pagation : it may suffice for three females ; it feeds them on the nest as it does the young. The Siskin and the Gold-Finch are neither so vigorous nor so attentive, and are content with a single female Canary-Bird.

The birds that come from the junction of the Cini, the Siskin, and the Gold-Finch, with a hen Canary-Bird, are generally stronger than those from a cock and hen Canary-Bird. They sing longer, their voice is more sonorous and strong, but they are taught with difficulty ; the greater part always whistle imperfectly, and one is seldom to be found which can repeat a single air without missing.

When we would wish to procure birds from a mixture of the Gold-Finch with a hen Canary-Bird, the former must be two years old, and the latter one ; because the Canary-Bird comes sooner to maturity than the Gold-Finch, and in general they succeed best when they have been bred up together. This, however, is not absolutely necessary, and the author of the *Treatise on Canary-Birds* * is mistaken when he cautions us against using a hen that has formerly hatched with a cock of its own species, as if that would prevent her from receiving the male of another species. “ I happened, says Father Bougot, to put four males to eight female Canary-Birds ; some bad feed poisoned three of

* *Traité des Serins des Canaries*, p. 163.

the males, and all the females lost their first eggs; I resolved to substitute three male Gold-Finches taken in a trap in place of the three dead Canaries, and I put them into the cage about the beginning of May. Towards the end of July I had two nests of mongrels which succeeded to admiration; and the following year I had three broods with each Gold-Finch and hen Canary-Bird. These last in general do not breed with the Gold-Finch till they are from a year to four years old; while with their own species they continue to hatch for nine or ten years. The common variegated female alone will breed with the Gold-Finch beyond her fourth year. A Gold-Finch must never be let loose in an aviary, for he destroys the nests, and breaks the eggs of the other birds." We see then that hen Canary-Birds, though accustomed to the males of their own species, will yield to the caresses of the Gold-Finch, and will breed with these birds successfully. Their union with these is even as fruitful as with their own natural males, since they lay three times in the year with the Gold-Finch: it is not so in the union of the male Linnet with the hen Canary-Bird; in this case there is only one brood, and very seldom two, in the year.

The bastard birds which proceed from the Canary and the Siskin, Gold-Finch, &c. are by no means sterile; but mongrels that can pair

and propagate, not only with their races by father and mother, but with themselves, and produce offspring that can also pair and perpetuate their varieties. But it must be owned, that the produce of these mongrels is not so certain nor so numerous by any means as in the pure species: they seldom hatch more than once in a year, and often lay eggs that are addle. The successful production depends on many little circumstances which cannot be discovered, far less pointed out. It is said, that among these mules there are always many more males than females. "A female Canary-Bird and a Gold-Finch, says Father Bougot, produced in the same year, at three hatchings, nineteen eggs that were all fertile; among the nineteen there were only three females, the other sixteen were males." It is to be wished that this fact could be ascertained by repeated observations. It remains therefore to determine by experiment, (and this will not be difficult) how many males and how many females are produced in the pure species of the Canary-Bird, and then to observe if the number of males is greater in the mongrels that proceed from a cock Gold-Finch and a female Canary-Bird. The reason that inclines me to believe this is, that in general the male has more influence than the female on the strength and quality of the different races. Besides, those mongrel birds which

are stronger, which have a more piercing note, and a longer breath than Canaries of the pure species, likewise live longer. But there is one constant observation which relates to both; and that is, the oftener they hatch, the more they abridge the period of their lives. A cock Canary-Bird reared alone, and deprived of any intercourse with a hen, generally lives thirteen or fourteen years; a mongrel proceeding from the Gold-Finch in the same circumstances, will live eighteen or even nineteen years. A mongrel from the Siskin will live fifteen or sixteen years; while the cock Canary-Bird, that has been accustomed to one or more females, lives only ten or eleven years, and the mongrel from the Gold-Finch fourteen or fifteen years. It is necessary, moreover, to separate them from the females immediately after the hatching season, that is, from the month of August to March; otherwise their passion so exhausts them, that their lives are still shorter by two or three years.

In the lower animals, as well as in man, even in our small birds, the diversity of character, or if you will, of moral qualities, often injures the consonance of physical qualities. If any thing could prove that the disposition is a good or bad impression given by nature, which education cannot alter, it would be the instance of our Canary-Birds. "Almost every one of

them, says Mr Hervieux, differs from another in disposition. There are some cocks that are always melancholy and even sullen, singing seldom, and then in a dismal strain; they are long in learning, and learn at last but imperfectly what you teach them, and the little they know they very soon forget. These are often so uncleanly, that their feet and tail are generally dirty; they do not please the female, whom they never regale with their song, even when her young first appear, though indeed these are seldom much better than their father. There are others so wicked that they kill the hen they are put to, and there is no other way of taming them than by giving them two females, who join for their common defence; and when they have once vanquished by force they conquer afterwards by love*. There are others so bar-

* It sometimes happens, that these ill-natured males have other qualities, which repair in some measure their defects, such as a most melodious song, a beautiful plumage, and great tameness. If, therefore, you would have a brood from them, you must take two hens that are vigorous, and a year older than the cock; put these hens for a few months into the same cage, that they may know each other well, and when they will not be jealous, or fight when put to the cock. A month before hatching time, put them both into the same cage, and at the proper season introduce the male, who will instantly endeavour to beat the two hens, especially for a few days at first; but they, standing upon their defence, will soon gain the absolute command of him; so that, seeing he can gain nothing by force, he will begin to grow tame and ena-

barous as to break and eat the eggs when the hen has laid them; or if this unnatural father allows her to hatch, the young are hardly excluded from the shell, than he seizes them with his bill, drags them from the nest and kills them †. Some are so wild, savage, and ungo-

moured. These forced marriages sometimes succeed better than others from which much more has been expected, and which often produce nothing. In order to preserve the brood, you must take away the eggs as the hen lays them, and substitute others of ivory; and when they are all laid, the cock must be removed, the eggs replaced, and the hen left to hatch them. The cock is to be kept in a cage, in the same room, while the hen is sitting on her eggs, and feeding the young; but as soon as you take away the young to feed them with a stick, you must relieve the cock, and restore him to the female.

Traite des Sevins des Canaries.

† There are some cocks of a weakly habit, careless of love, and always sickly after pairing. These should never be used for breeding; for I have observed, that their issue always resembles them. There are others so petulant that they beat the hen off the nest and prevent her from sitting: these are the strongest birds, the best singers, and often the most beautiful and familiar; others break the eggs and kill the young, that they may the longer enjoy the female. Others have a remarkable predilection and marked preference for certain females. A cock placed among twenty hens will single out one or two which he will constantly attend and make love to without minding the rest. These cocks are of a good natural temper, which they communicate to their progeny. Others do not attach themselves to any female, but remain sterile and inactive. The same difference of temper and manners is found among the hens. The jonquil-coloured hens are

vernable, that they will allow themselves neither to be touched nor caressed; they must be left at liberty, and cannot be treated like the others: if they are meddled with in the least they will not breed, their eggs must not be touched or taken away; and they will not hatch if they are not suffered to pair and build as they please. Lastly, there are some of an indolent disposition; such, for example, are the grey ones; these never build, and the person that attends them must make a nest for them. All these tempers are very distinct and very different from that of our favourite Canary-Birds, which are always gay, always singing, tame, agreeable, good mates, attentive fathers, and of so gentle a disposition and so happy a temper, that they are susceptible of every good impression, and endowed with the best inclinations: they charm incessantly the hen with their song; they soothe her in the distressful assiduity of hatching;—they invite her to quit her

the gentlest; the agates are capricious, and often quit their young to give themselves to the male; the hen spangled birds are constant to their eggs, and good to their young; but the cock spangled birds are the most ardent of the species, and must be provided with two and even three hens, otherwise they will not suffer the hen to sit, and they will break the eggs. Those that are entirely jonquil-coloured are nearly of the same disposition, and require two or three females. The cock agates are the weakest, and the hens often die when sitting.

place to them, and actually sit on the eggs several hours every day; they join with her in feeding the young; and, lastly, they are docile, and learn whatever we chuse to teach them. It is by these alone that we must form an opinion of the species; and I have only mentioned the others, to demonstrate that the temper and disposition, even in animals, proceed from Nature and not from education.

This bad disposition, which makes them break their eggs and kill the nestlings, often proceeds from their temperament and from the impetuosity of their love; it is to enjoy the female that they drive her from the nest and destroy the tender objects of her affection. Accordingly, the best means of making these birds hatch is not to separate them, or to put them in different cages. It is better to put them into a room well exposed to the sun, and to the east, in Winter, where there are many hens and a few cocks: here they enjoy themselves more, and multiply better: when a hen sits, the cock finds him another mate, and does not disturb her. Besides, the cocks have many quarrels among themselves from jealousy; and when they see any one so ardent as to torment the female, and attempting to break the eggs, they beat him sufficiently to deaden his desires.

When they are about to build, you must furnish them with lint, the hair of oxen or stags, which has not been employed in other uses, with moss, and very small and dry straw. Gold-Finches and Siskins, if put with hen Canary-Birds when mule birds are wanted, prefer small straw and moss, but the Canary-Birds like better to use the hair and lint: these must be cut very small, for fear the threads should entangle the feet of the hen, and cause her to pull the eggs from the nest as she rises from it.

In feeding them, you must place in the room a hopper pierced all round, so as to admit their head, filled with a portion of the following composition: three quarts of rape-feed, two of oats, two of millet and of hemp-feed: every twelve or thirteen days the hopper is to be filled, taking care that these feeds are clean and well winnowed. This food is proper as long as they have only eggs; but the evening before the young are to be excluded, they must have a dry cake kneaded without salt, which may be left till it is eaten up, and then you may give them eggs boiled hard; a single hard egg if there are but two cocks and two hens, two eggs if there are four cocks and eight hens, and so in proportion. They must have no green thing while they are breeding, which would weaken the young too much; but in order to vary their food a little, and cheer them with a new mess.

give them every third day, on a plate, instead of the dry cake, a bit of white bread dipped in water and pressed with the hand; this bread not being so substantial a food as the cake, will prevent them from growing too fat when hatching: it will likewise be proper to give them at the same time some poppy seeds, but only once in two days, for fear of heating them too much: sugared biscuit generally produces this effect, which is followed with another still more hurtful; for when they are fed on biscuit, they often lay addle eggs, or bring weak and sickly young. While they have young, boil their rape-feed to deprive it of its acrimony. "Long experience, says Father Bougot, has taught me that this food is that which best agrees with them, notwithstanding what all authors have said who have written expressly on the subject."

After the eggs are all laid, give them plantain and lettuce seed to purge them, taking away however the young, for this food would weaken them, and must be given only for two days to the parent birds. When you wish to rear Canary-Birds with the stick, you must not, according to the directions of most bird-breeders, leave them with the mother to the eleventh or twelfth day; it is better to take away the young after the eighth day; take them away in the nest, and leave nothing but the case. The

food of the nestlings must be previously prepared; it is a paste composed of boiled rape-seed, a yolk of an egg, and crumb of the cake mixed and kneaded with a little water, which is to be given them every two hours. This paste must not be too liquid; and for fear of its growing sour, it must be renewed every day till the young can feed themselves.

The brood of birds in a state of captivity is not so constant, but is perhaps more numerous than it would probably be in a state of native freedom; for there are hens who will hatch four and even five times a-year, laying four, five, six, and sometimes seven eggs at a time: in general, they have three broods, and the moulting prevents their having more. There are hens, however, that hatch while they moult, provided they begin to sit before that time. Birds of the same nest do not all begin to moult at the same time. The weakest are the first that undergo that change; the strongest are often a month later. The moulting of jonquil Canary-Birds is more tedious and generally more fatal than that of the others. The hens of these jonquil birds lay only three times with three eggs each time; the light-coloured ones, both cock and hen, are too delicate, and their brood seldom prospers. The cream-coloured have some repugnance at pairing with one another; in a large aviary the male generally

chuses one of a different colour. In general, the white go through the whole process with equal success; they pair, build, and hatch as well, and better than any of the others, and the white spangled birds are likewise the strongest of all.

Notwithstanding these differences in the disposition, temperament, and fertility of these birds, the time of incubation in all is the same; all of them sit thirteen days, and when it happens a day less or more, it is owing to some accidental circumstance: cold retards the exclusion of the young, and heat accelerates it. Accordingly, it sometimes happens that the first sitting in April lasts thirteen days and a half, or fourteen days, if the air is at that time cold; on the contrary, the third hatching, which happens during the great heats of July or August, lasts only twelve days or twelve days and a half. The bad eggs ought to be separated from the good; but in order to know them certainly, you should wait till they have been sat upon for eight or nine days; then take each egg by the two ends for fear of breaking them, and hold them against the sun or a lighted candle; those that are clear must be rejected; it would only fatigue the hen to leave them with her. In thus detaching the clear eggs, of three nests we may make only two; and the third hen being

at liberty will proceed again to lay *. It is a practice much recommended by bird-fancyers to take away the eggs as the hen lays them, substituting an ivory one in their place, that the whole may be hatched in one day. When the last egg is laid, the ivory ones are removed and the others replaced. In general, the time of laying is in the morning, about six or seven o'clock: it is said, that when this happens an hour later it is owing to the hen's being sick; the eggs being thus laid in regular succession †, it is easy to take them away the moment they are laid. However, this practice is more adapted to our own convenience than to that of the bird, and is contrary to the economy of nature; it makes the mother part with a great deal of heat unnecessarily, and burdens her at once with five or six young, which incommode her

* In giving the eggs of one hen to others, we must be sure that they are all good; the hen spangled birds that get clear or bad eggs, will of themselves throw them out of the nest; and when this is so deep that they cannot effect it, they never leave striking them with their bill till they are broken, which spoils the other eggs, injures the nest, and makes the whole become abortive: the females of the other varieties will sit upon clear eggs. *Father Beget.*

† The eggs are all laid at the same hour except the last, which is some hours, and at other times a day later. This last egg is always smaller than the rest, and I have been assured that the bird it contains is always a cock. I wish the fact were well ascertained.

more than they give her pleasure: while, when she sees them come successively one after the other, her pleasures are multiplied, and her strength and courage supported: accordingly, very intelligent bird-fancyers have assured me, that the natural way has always succeeded better with them than the above-mentioned practice.

Indeed I must say that, in general, too subtle practices, and the scrupulous cares which our writers advise us to bestow on the rearing of birds, are more hurtful than useful; we must as much as possible imitate Nature in every thing. In their native spot Canary-Birds haunt the banks of little rivulets, or of moist ravines; we must not therefore suffer them to want water, either to drink or to bathe in. As they are natives of a very mild climate, we must defend them from the rigor of winter; but as they seem now long naturalised with us they are accustomed to our cold weather, for we may keep them in a room without fire, and even with the window open, guarded however with a network to prevent their escape. I have known many bird-fancyers who have assured me, that, by treating them thus hardily, they lose fewer than when they are kept in warm rooms. It is the same with regard to their food; it may be rendered more simple, and perhaps the birds

will be the better for it *. One circumstance it is particularly necessary to attend to, and that is, to beware of pairing them too soon in the season: in general, it is the custom to permit their union towards the 20th or 25th of March, whereas the 12th or 15th of April is a more proper time; for when they are put together while the weather is still cold, they grow indifferent for one another, and, if the hen happens to lay eggs, she leaves them if the weather does not grow warm; thus we lose a whole hatching by seeking to have it too early.

The young birds are different from the old ones, not only in colour but in other qualities. A young Canary-Bird of the year, observed on the 13th of September 1772, had the head, the neck, the back, and the quill-feathers blackish, except the four first feathers of the right wing, which were whitish; the rump, the coverts of

* I have learnt, from the fatal experience of trusting to the directions of others, to confine my treatment to the following: I have given them for food, rape-seed and millet; water every other day in Winter, and once or twice a-day in Summer; groundsel when it is to be had once a month; chick-weed in moulting time; instead of sugar, bruised oats and Turkey corn; but particularly great cleanness is necessary. *Traité par M. Batteau.*

I must here remark a small error: It is generally agreed, that Canary-Birds must by no means have groundsel while they are moulting; for that food is too cooling, and prolongs the season of their indigestion. The other directions given by Mr Batteau appear to be well founded.

the wings, the tail, which was still not quite formed, and the under part of the body, were also of a whitish colour, and there were not as yet any feathers on the belly from the *sternum* to the *anus*. This young bird had its lower mandible entering within the upper, which was pretty thick and a little hooked. As the bird advances in age, the disposition and shades of the colour change; the old are distinguished from the young birds by strength, colour, and song. The old ones have always the strongest and most vivid colours, their feet are rougher, inclining to black if they are of the grey race; and the nails are thicker and longer than those of the young. The female sometimes so much resembles the male, that it is not easy to distinguish the difference at first sight: however, the colours of the male are always the brightest, his head a little thicker and longer, the temples more of an orange colour, and under the bill a flame-coloured yellow, which descends lower than in the female; his legs are also longer, and he begins to record almost as soon as he can feed himself. It is true, that there are hens which likewise begin thus early; but taking all these marks together, we will be at no loss to distinguish, even before the first moulting, the cock from the hen. After that time there is no more uncertainty, for the cock declares himself by his song.

Every quick exertion of the voice is in animals a strong indication of passion; and as love, of all internal emotions, is that which agitates them oftenest, and transports them most powerfully, they do not fail to express its ardour. Birds by their song, the bull by its lowing, the horse by neighing, the bear by growling, all announce one and the same desire. The ardour of this desire is by no means so strong nor so conspicuous in the female as it is in the male, and accordingly she expresses it but seldom by her voice; that of the hen Canary-Bird is nothing more than a gentle note of tender satisfaction, a sign of consent which does not escape her till she has long listened to and suffered herself to be won by the ardent prayer of the male, who exerts himself to inspire her with the same passion which he feels. But when her desires are once excited, there is a necessity for gratifying them, otherwise she often falls sick and dies.

It is seldom that Canary-Birds brought up in a chamber fall sick before hatching: sometimes a few cocks over eat themselves and die: if the hen grows sick while she is sitting, her eggs must be taken away and given to another; for though she should get better soon, she will not return to her nest. The first symptom of sickness, especially in the cock, is melancholy: whenever he is observed to lose his natural gaiety

ty, he must be put in a separate cage and placed in the sun in the same room with the hen. If his feathers appear rough, you must look if he has not a pimple above the tail; when the suppuration here is fit to be opened, the bird often performs it himself with his bill; but if it goes on too slowly, it must be opened with a large needle, and the wound anointed with saliva, without mixing any salt with it, which would smart it too much. The next day, you may let him loose, and observe, by his behaviour and eagerness for the hen, whether he is cured or not. If not, you must take him again, and with a small quill blow a little white wine under his wings, put him in the sun, and next day when you let him loose judge as before of the state of his health; if melancholy and disgust for the female continue after these remedies, all hope of cure is vain: he must be put into a separate cage, and another male given to the hen similar to the one she has lost, or if that cannot be, one of the same variety with herself: there is generally most sympathy between those which resemble each other, except in the case of cream-coloured varieties which prefer the females of any other colour. But care must be taken that the new male be not a novice, but already acquainted with the duties of a parent. When the female falls sick she must have the same treatment with the male.

The most general cause of sickness is too abundant or too rich food: when these birds are made to breed in a cage or closet, they often eat too much, or select the succulent food designed for the young; hence the consequences are either repletion or inflammation. By keeping them in a room this inconvenience is in a great measure prevented; because being among a great number, they hinder one another from eating to excess. A cock who eats for a long time is sure to be beaten by the other males; and the same is the case with the hens: these quarrels give them exercise, temperance, and occupation from necessity: it is chiefly on this account that they are seldom or never sickly in a chamber during the breeding time; it is only after hatching that infirmities and diseases attack them. The greater part have the pimple we mentioned above, and afterwards all of them are subject to moulting. Some support pretty well this change of state, and do not fail to sing a short while every day; but most of them lose their voice, and some even die. When the hens have attained the age of six or seven years many of them die in moulting; the cocks support this species of disease more easily, and exist three or four years longer. However, as moulting is a natural effect rather than an accidental disease, these birds would have no need of remedies, or would find such

for themselves had they been reared by their parents in a state of nature and liberty. But being under restraint, fed by us and made more delicate, moulting, which to birds at freedom is only an indisposition, a less perfect state of health, becomes to those in captivity a serious and often fatal malady, for which indeed there are but few remedies*. It remains only to say that moulting is the less dangerous, if it happens early, that is, in a good season of the year. Young Canary-Birds moult early in the year, about six weeks after they are hatched: they become melancholy, appear rough, and put their head under the wing. Their down falls in this first moulting, and in the second the following year; the large feathers, even those of the wings and tail, fall likewise. The young birds of the last brood, which have not been hatched till September or later, suffer accordingly much more in moulting than those which were hatched in the Spring. Cold weather is very unfriendly to this state, and they would all die were they not kept in a temperate, or ra-

* At moulting time put a bit of steel, not iron, into their water, changing it three times a week: give them no other medicine, only put a little more hemp-feed than usual among their meat during this critical period. *Note of Father Bougot.* Observe that steel is preferable to iron, only that you may be sure there is no rust, which would do more harm than good.

ther warm place. While this function is going on, that is, for six weeks or two months, Nature labours to produce new feathers; and the organic molecules which had been previously employed in forming the feminal fluid are now engaged in this new production; accordingly, when moulting, birds neither breed nor pair; for the superflux of life is wanting, which every being must have before it can convey it to others.

The most fatal and most common disease that the young Canary-Birds especially are subject to, is that called the Surfeit, in which their bowels seem to descend to the extremity of the body. The intestines are seen through the skin, in a state of inflammation, redness, and distension; the feathers on the part fall off; the bird grows emaciated, gives over eating, though he sits perpetually beside his meat, and dies in a few days. The cause of this disease is the too great quantity, or too succulent quality of the food. All medicines are fruitless; diet alone can save a few out of a number of birds thus affected. They must be put into separate cages, and nothing given to them but water and lettuce-feed: this food is cooling and purgative, it tempers the ardor which consumes them, and sometimes causes evacuations that save their lives. In fine, we may observe, that this disease proceeds solely from our method of rearing

these birds, for it is seldom that those fed by the parent birds are ever attacked with it. We ought therefore to be particularly cautious of over-feeding them when we bring them up with the stick: boiled rape-feed, a little groundsel without sugar or biscuit, and in general rather too little than too much food, is the most approved method.

When the Canary-Bird utters a faint and frequent cry, which seems to issue from the bottom of his stomach, he is said to be asthmatic: he is also subject to a sort of extinction of voice, especially after moulting: The asthma is cured by administering plantain seed and hard biscuit soaked in white wine: and the extinction of voice, by good food, such as yolks of eggs mixed with the crumb of bread; and for drink, a posset of liquorice; that is, water in which liquorice root has been steeped and boiled.

Canary Birds are frequently affected with ulcers in the mouth; these proceed likewise from too abundant or too succulent food, which often produces inflammation in the throat and palate, and must be cured by cooling diet, such as lettuce seed with water, in which some bruised melon-seeds have been put.

These birds are likewise infested with a sort of lice and the scab, owing to the slovenly manner in which they are kept. Therefore care should be taken to keep them always very clean,

giving them water to bathe in ; never putting them into cages of old wood, never covering these but with new cloth where there have been no moths, and sifting and washing the feeds and herbs given them for food. These little cares must be bestowed on them if we would have them neat and healthy : they would be so if they were in a state of liberty ; but confined and ill seen to, they are, like all prisoners, subject to the evils of captivity. Of all those we have mentioned, none seem to be natural except moulting. There are even some of those birds which, in this wretched state of captivity, are never sick, custom seeming to have made it to them a second nature. In general, the fault of their temperament is excess of heat, and therefore they constantly need water. When wild, they are found near rivulets or waste places : bathing is necessary for them at all seasons ; for if a plateful of snow is put into their cage, they will lie down in it and turn themselves upon it with signs of pleasure, even in time of the greatest colds : this fact proves sufficiently, that it is more noxious than useful to keep them in very warm places.

But there is another disease to which the Canary-Bird, as well as others, such as the Gold-Finch, are subject to, especially in confinement ; I mean the Epilepsy. The yellow Canary-Birds are most liable to this falling-sickness, which

seizes them in a moment, even when they are singing the loudest. It is said they ought not to be touched or taken up when they fall, but that we ought merely to observe if they have voided a drop of blood at the bill, in which case they will come to themselves and recover in a little space their sense and life; that touching them before would make the drop fall too soon, and would occasion their death. I wish the truth of this account were well ascertained, for some facts in it appear to me doubtful. This much is certain, that when they survive the first fit, they often live as long after it as if they had never been attacked by it. I believe, however, that they might all be cured by giving them a slight wound in the feet, for in this way Parrots are often cured of the epilepsy.

How many evils attend upon slavery! In a state of freedom would those birds be asthmatic, scabby, or epileptic? Would they be liable to inflammations, to imposthumes, to ulcers? and is not the most direful of all diseases, that arising from ungratified love, common to every being in captivity? Females especially, being more deeply tender, more delicately susceptible, are more subject to it than males. It is remarked, that the hen Canary-Bird often grows sickly at the beginning of Spring, before she has got a mate; she fades, pines, and dies in a few days. The vain emotions and ungratified de-

fires which then seize her suddenly, are the cause of her languor, when she hears so many males singing around her whom she cannot approach. The cock, though the cause of the desire and the most ardent in appearance, resists better than the female the evils of celibacy; he seldom dies of privation, but often of excess.

Upon the whole, the physical temperament of the hen Canary-Bird is like that of the females of other birds. She can lay eggs without any communication with the male, but they are addie, and the heat of incubation corrupts instead of vivifying them. It has been observed, that hens seldom lay eggs if they are totally sequestered, and neither hear nor see the male; but when they are excited by the sight of him, or by his song, they lay much more frequently: such effect have objects, even at a distance, on the powers of sentient beings; I cannot better conclude this subject than by extracting the following remarks of a letter from the Honourable Daines Barrington to M. Maty on the singing of birds:—

- “ Most people who keep Canary-Birds, do
 “ not know they sing chiefly either the Tit-
 “ Lark or the Nightingale’s notes.
 “ Nothing however can be more marked
 “ than the note of a Nightingale, called its
 “ *Fug*, which most of the Canary-Birds brought

“ from the Tyrol commonly have, as well as
“ several Nightingale strokes, or particular pas-
“ sages in the song of that bird.

“ I have mentioned the superior knowledge
“ in the inhabitants of London, because I am
“ convinced, that if others are consulted in re-
“ lation to the singing of birds, they will only
“ mislead, instead of giving any material or use-
“ ful information.”



S T S K I N



*The History of the*SISKIN, *or* ABERDUVINE *.

(Fringilla Spinus. Linn.)

OF all granivorous birds the Gold-Finch is supposed to be the most nearly allied to the Siskin; both have the bill elongated and slender toward the point; the manners of both are gentle; they are of a docile disposition, and their motions are brisk and lively. Some Naturalists, struck with these marks of resemblance, and the great analogy which subsists between these birds in other respects, (for they pair and produce fertile offspring,) have considered them as two proximate species of the same genus.

The Siskin is smaller than the Goldfinch; his bill is shorter in proportion, and his plumage quite different; he has black on his head, but no red; his throat is brown; the fore-part of the neck, the breast, and outward feathers of the tail are yellow, the belly white, with a yellow tinge; the upper part of the body of an olive green, spotted with black, which becomes

* Also from the Natural History of the Comte de Buffon.

yellowish at the rump, and still more so on the feathers above the tail.

With regard to those internal qualities that more immediately depend on organization or instinct, the difference is still greater. The Siskin has a song peculiar to itself, inferior to that of the Gold-Finch; it is fond of the seeds of the alder, which the other will not touch, and it resigns to the Gold-Finch those of the thistle; it creeps along the branches, and suspends itself at their extremities like the Tom-Tit, so that it may be considered as an intermediate species between this latter and the Gold-Finch. Besides, it is a bird of passage, and in its migrations flies very high; it is heard before it is seen: while the Gold-Finch continues stationary in our climates all the year round, and never flies very high. Lastly, these birds are never found to associate together voluntarily.

The Siskin learns to draw water like the Gold-Finch; it has not less docility, and though less active, it has more liveliness and gaiety; in an aviary it is always the first awake, and is the first to record and set the example to others; but as it has no wish to hurt, it is itself unsuspecting, and falls easily into snares, gins, nets, &c. It is more easily tamed than any other bird when taken old; it is only necessary for this purpose, to present it in your hand with

better food than it has at its trough, and it will soon become as tame as the most familiar Canary-Bird: it may even be made to come and sit upon your hand at the sound of a small bell; you have only to sound it regularly at first, every time you give it meat, for the mechanical effects of the association of ideas take place even in animals. Although the Siskin seems nice in the choice of its food, yet it eats a great deal, and the sensations which depend on luxurious feeding have great influence on it. This however is not its ruling passion, or at least it is subordinate to a more noble one: in an aviary it always chuses a friend from among its own species if it can find one; if not, from some other: it takes upon itself the charge of feeding this friend like its young, putting the food into the other's bill. It drinks as much as it eats, or at least it drinks very often, but seldom bathes: it has been observed, that it very seldom goes into the water, but stands on the rim of the vessel, dipping its bill and breast, without much agitation, except perhaps in great heats.

It is said to build chiefly in mountain forests; its nest is difficult to find; so difficult, as to be a received opinion with the vulgar, that it has the art of rendering its nest invisible, by means of a certain stone: accordingly nobody has given any account of the nest or manner of laying of these birds; though, if we would have

an idea of their procedure in these operations which tend to the multiplication of the species, we have only to make them breed in a room, which they would do, though indeed the experiment has been several times tried unsuccessfully: but it is more common and more easy to cross the breed of this race with the Canary-Bird: there is a sympathy so marked between these two species, that if a cock Siskin is put into a place where there are many Canary-Birds, he goes directly towards them, keeps as near them as possible, and they also court him with as much eagerness: if a cock and hen Siskin be let fly in the same room with a number of Canary-Birds, these last will pair indifferently with the former, or with those of their own species; but the male Siskin is sometimes left unprovided.

When a cock Siskin has paired with a hen Canary-Bird, he partakes in all her labours with zeal; he assiduously helps her in bringing materials for the nest, and in using them, and never fails to feed her while she is sitting; but notwithstanding this co-operation, it must be confessed that the greatest part of the eggs are clear. A union of dispositions is not sufficient to operate fecundation; there needs likewise a certain conformity of temperament, in which respect the Siskin is far below the female Canary-Bird. The few male birds that are the

produce of this union, resemble both father and mother.

In Germany, the migration of the Siskins begins in October, or even earlier: at that time they feed on the seed of the hop, to the great injury of the proprietors: the place they have stopt in is well known by the quantity of leaves with which the ground is srowed: they disappear quite in the month of December, and return in February. In France, they come at Vintage time, and return when the trees are in flower; they are fondest of the flower of the apple tree.

In England they are seen on their passage as in other places, sometimes in great numbers, at other times in very small flocks. The great flights happen every third or fourth year, and then, such is the multitude, that some have supposed they were brought by the wind.

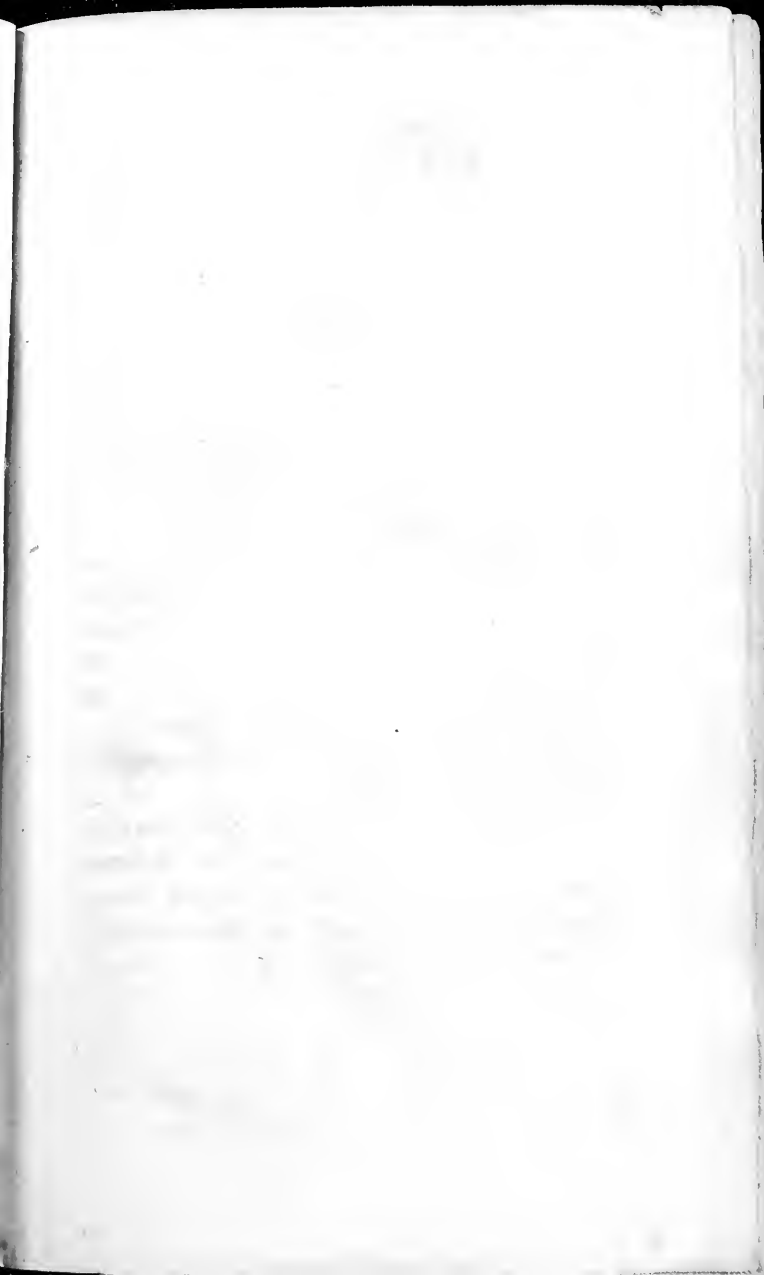
The song of the Siskin is not disagreeable, but much inferior to that of the Gold Finch, which it acquires with ease. It would likewise appropriate that of the Canary-Bird, of the Linnet, &c. could it bear them at an early age.

According to Olina, this bird lives to ten years; though we must remember, that among birds the females live longer than the males; but Siskins are little subject to diseases; except to inflammation of the intestines when they have been fed on hemp-seed.

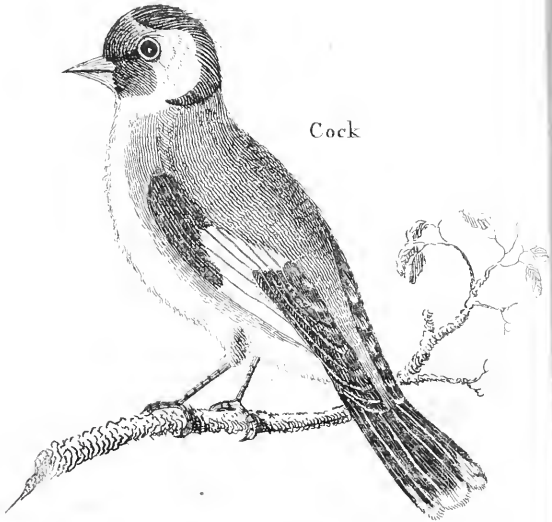
In the cock Siskin the crown of the head is black, the upper part of the body of an olive colour, mottled with black; the rump has a tinge of yellow, the small covert feathers above the tail are quite yellow, the larger ones olive, terminated with ash colour: sometimes the throat is dun, and even black; the cheeks, the fore-part of the neck, breast, and inferior covert feathers of the tail, are a fine citron yellow; the belly yellowish white, and so are the sides, but mottled with black; there are two transverse olive-coloured or yellow streaks on the wings, the quill-feathers are blackish, bordered exteriorly with olive; the tail feathers are yellow, except the two middle ones, which are blackish, bordered with greenish olive; the edges of all are black: the bill is brown at the point, the rest is white and the feet grey.

The head of the hen is not black, but greyish, and her throat is white.

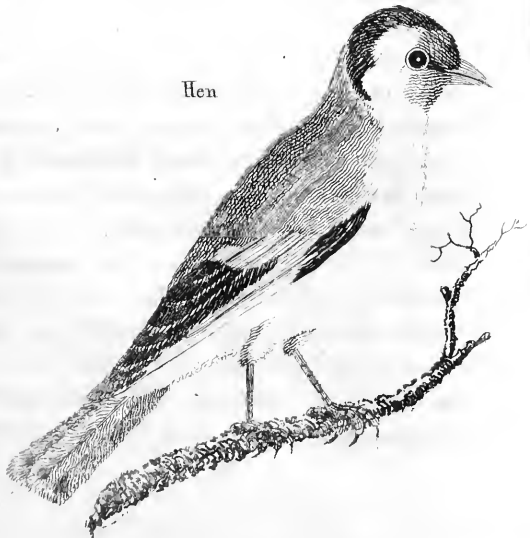
The whole length four inches three fourths; the bill five lines; wings from tip to tip seven inches two thirds, the tail twenty-one lines, somewhat forked, and projecting seven or eight lines beyond the wings.



G O L D F I N C H



Cock



Hen

GOLD-FINCH.

Description and Character.

IT is something larger than the Canary-Bird, and is a straight handsome shap'd bird, has a straight sharp ash-coloured bill, and the eyes of a hazel colour. The length of a full grown bird, from the tip of the bill to the point of the tail, is five inches and a half, of which the latter is two, and the former little more than half an inch long; when in flesh it weighs about an ounce.

This bird is every where in this kingdom well known, and highly esteemed, both for singing, and the elegance of its colours, being certainly the most beautiful and finest feathered of all cage-birds; a ring of curious scarlet-coloured feathers encompass the fore-part of his head, or basis of the bill, and from the eyes to the bill on each side is drawn a black line, the jaws or cheeks white, the top of the head black, from which a broad black line is extended on both sides, almost to the neck; the hinder part of the head is white; the neck, and fore-part of

the back are of a redish ash-colour; the rump, breast, and sides of the same, but a little paler; the belly whitish, the wings and tail black; only the tips of the principal feathers in both are white; besides, the wings are adorned with a most beautiful transverse stroke of yellow or gold colour.

I should not have been so particular in describing the colours of this bird, but I think the great variety that Nature has painted it with, wherein it excels all small birds, at least what are found in this part of the world, make it deserving of the best character that can be given it; yet, by reason of age, sex, or other accidents, they sometimes vary from those colours*.

They are of so mild and gentle a nature, that, presently after they are caught, without using any art or care, they will fall to their meat and drink: nor are they so affrighted at the presence of a man as most other birds are wont to be, nor very much troubled at their imprison-

* The most singular of these varieties is the white Gold-Finch, being wholly of that colour except the fore-head, which is pale red, and the outer edge of the quills, which is yellow. One of these is now (1791) in the possession of her Grace the Dutchess of Buccleugh, at Smeton house, and another in that of a Lady at Musselburgh. They were taken from the same nest, along with two others which were of the ordinary colour, and are now about eight years old.

ment in a cage; for, if they have continued there a good while, they like it so well, that though you let them loose, they will not fly away; but, when scared, fly directly to their cage for shelter.

They are called in some places Draw-waters, from their aptness to learn to draw their water when they want to drink, in a little ivory bucket, fastened to a small chain, made for that purpose: it is a pretty sight to see with what dexterity these little creatures will pull up their bucket, drink, and throw it down again; and lift up the lid of a small box or bin, with their bill, to come at their meat, &c. They are wonderfully delighted with viewing themselves in a glass, fixed to the back of their bucket-board, where they will sit upon their perch, pruning and dressing themselves with the greatest care imaginable, often looking in the glass, and placing every feather in the nicest order: no lady can take greater pleasure, or be more nice in dressing herself, than this little beautiful bird is in rectifying all disorders in his plume, not suffering a feather to lay amiss.

The Gold-Finch is a long-lived bird, that will sometimes reach to the age of twenty years: Mr Willoughby makes mention of one that lived twenty-three years. They are birds that fly in flocks, or companies; and when at liber-

ty, delight to feed upon the seeds of thistle, teasel, hemp, dock, &c.

Marks of the Cock and Hen.

THE feathers on the ridge of the wing in the cock are coal-black, quite up to the shoulder, whereas in the hen-bird, though they appear black, are of a grey, or dusky ash-colour, when compared to those of the cock: he is browner on the back and sides of the breast; the red, yellow, and, in short, all his colours are much brighter than those of the hen; these are constant, infallible marks, by which the cock may be known from the hen, either old or young: besides, the hen hath a smaller note, and sings not so much.

Time and Manner of building their Nest, &c.

THE Gold-Finch begins to build in April, when the fruit-trees are in blossom: as they excel all our small birds in beauty of feathers, so do they likewise in art: their nest is not only very small, but exceeding pretty; the outside consists of very fine moss, curiously interwoven with other soft bedding; the inside lined with delicate fine down, wool, &c. She lays six or seven white eggs, specked and marked with a

reddish brown To find their nest is not very easy, for they generally build in fruit-trees, viz. apple, pear, plumb, &c. but most commonly in the apple, pretty high upon the branches, where either the blossom or leaves intercept our sight; and at such a time when we cannot come at them without the hazard of damaging the bloom or young fruit. I have known these birds very often to build in the elder-tree; and sometimes in thorns and hedges; but not near so common as in fruit-trees.

Of the Young, how to order them, &c.

THE Gold-Finch has six or seven young ones at a breeding; they are tender birds, and therefore should not be taken too soon; let them be pretty well feathered first; they will not be sullen, like the young of many other birds, by staying too long in the nest; when you take them, prepare their meat after this manner:—soak white bread in fair water, strain it, and then boil it with a little milk, till it is as thick as hasty-pudding, adding to it a little flour of Canary-feed; with this meat feed them every two hours, or oftener, giving them but little at a time, two or three small bits only; begin to feed them about sun-rising, and continue after this manner till sun-setting; let them

have fresh victuals every day, or every other day at farthest: when you have fed them a month, or thereabouts, begin to break them from this soft meat, by giving them a little Canary-feed, and soft meat besides; when you find they feed pretty freely upon the feed, keep them constantly to that diet; but though they will eat hemp-feed, and some other kinds of feed, yet I never found it agree so well with them as the canary.

If a young Gold-Finch be brought up under the Canary-Bird, the Wood-Lark, or any other fine singing bird, he will take their song very readily.

A cock-bird, bred from the nest, will couple with a hen Canary-Bird, and produce a bird between both kinds, partaking of the song and colours of both.

This is a long-lived and very healthful bird, that is seldom out of order; but when I find him droop, I give him saffron in his water: if he has a scouring, crumble a little dry chalk in his cage, or among his feed, or stick a bit betwixt the wires of his cage, and gravel at the bottom, and try him with a little thistle-feed, or other feeds, which they delight to feed upon when wild: the first may be found in the great thistle, at the bottom of a white down.

These birds are taken almost at any time of the year, either with lime-twigs, or the clap-

net, in great numbers; the young flight in June, July, or August; but the best time for catching them is about Michaelmas: they frequent the fields where the thistle, and those other feeds grow, as mentioned before; they are easily caught, being of so gentle and familiar a nature, and will both feed and sing presently; when you first take them, you may give them hemp-feed cracked, or some of the same they love to feed upon in the fields; you may soon bring them to feed on the canary, which is more wholesome, and agrees better with them than hemp-feed.

CHAFFINCH.

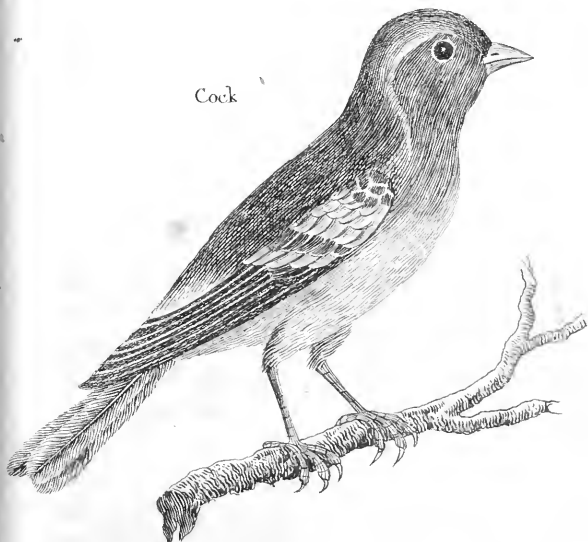
Description and Character.

THE Chaffinch is a stout, hardy, well-known bird, being common almost in every tree or hedge; of the bigness of the Bull-Finch, very lavish in his song, and when brought up from the nest, or branchers, will sing six or eight months in the year; the wild, not above three months, and chiefly in breeding time: some of these birds, when brought up under other sweet-song birds, prove good and valuable, but the greater part is not worth keeping.

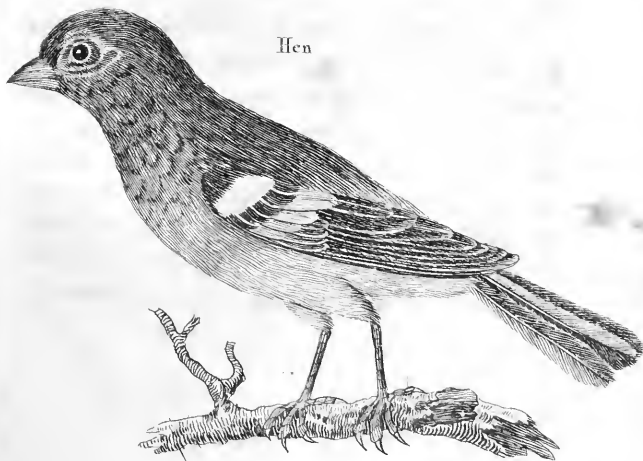
It is a custom among the bird-men, when they want to learn the Chaffinch, Linnet, &c. a song, to blind them when they are about three or four months old; which is done by putting out their eyes with a wire made almost red hot; because, as it is said, they will be more attentive, and learn the better; but it would be much better never to confine them in cages, than purchase their harmony by such barbarous usage.

C H A P P I N C H

Cock



Hen





Distinguishing Marks of the Cock and Hen.

THE cock of this kind may be easily distinguished from the hen, at ten or twelve days old, the difference being very plain, if you view them together. The cock bird has a great deal more white in his wing than the hen, particularly on his pinion; his breast is remarkably redder, and the feathers of the whole bird of a higher and brighter colour than the hen's. In an old bird, the head of the cock is bluish; the back of a redish brown, with a mixture of ash-colour, or green; the breast of a fine red, and the belly white: The colours of the hen are not so bright and lively, her rump is green, the back not so brown, and the belly inclines to a dirty kind of green; the breast is also of a duller colour, more upon the grey.

Time and Manner of building their Nest.

THEY breed in April, and have young ones about the beginning of May. She builds near the top of a high hedge, or in the branches on the side of a tree: her nest is the prettiest of all small birds, excepting the Gold-Finch's, which excels it in beauty; the outside is green moss, small sticks, withered grass, horse and

cow-hair, wool, feathers, &c. making an exceeding soft bed for her young, on which she lays four or five eggs of a whitish colour, spotted with a few large redish brown spots, with a few small specks and streaks at the largest end, of the same colour.

Of the Young, how to order and bring them up.

You may take them at ten days old, and feed them as you do the Gold-Finch or Linnnet; they are hardly birds. that may be easily raised.

And when they are sick and out of order, apply the same things as you do to these birds.

These birds are taken in great plenty with clap-nets in June and July, especially the young flight, called Branchers; therefore it is hardly worth the trouble of bringing them up from the nest; tho' some that are bred under the sweet-song Chaffinch, or any other fine song-bird, sometimes prove very good birds.



GREEN BIRD



Cock



Hen

GREEN-FINCH, or GREEN-LINNET,

Description and Character.

IT is a little bigger than the Chaffinch, of a strong, hardy nature: they are frequently kept in cages, but not much esteemed for singing; they are more valued for their learning to ring the bells in a cage contrived for that purpose: tho' some of them, if brought up from the nest, will learn to pipe, whistle, and imitate the song of most other birds.

At the beginning of Winter, and in hard weather, they gather in flocks, and may be taken with the clap-nets in great numbers.

Marks of the Cock and Hen.

His head and back are green, the edges of the feathers greyish; and the middle of the back hath something of a chesnut-colour intermixed: the fore-part of his head, neck, and breast, quite down to his belly and rump, are of a deep yellowish green; the lower belly inclining to whitish: the borders of the outermost quill-feathers of the wings are of an elegant yel-

low; and the feathers along the ridge of the wing are of a lovely yellow likewise. The colours of the hen are not so bright and lively; and on the breast and back hath oblong dusky spots: where the cock is of a fine yellow, her colours are of a fordid green. The young cock-birds, as soon as they are feathered, may be known from hens, by the same brightness in their colours.

Time and Manner of their Building.

THE Green-Bird has young ones about the middle of May. She builds in hedges, and makes a large nest; the outmost part of which consists of hay, grass, stubble, &c. the middle of moss, the inmost, in which the eggs lie, of feathers, wool, hair, &c. soft and pretty. She lays five or six eggs, of a very faint green colour, sprinkled with small redish spots, especially at the blunt end. The inside was an inch and a quarter deep, and four wide; the whole composition weighed eleven drams; another nest I examined at the same time, differed not in weight quite half a dram, and had dimensions equal likewise. The bird, from the end of his bill to the end of the tail, is six inches and a half; the bill is half an inch; and the tail two and a quarter. Its weight is about sixteen drams.

Of the Young, how to order them, &c.

She has five or six young ones at a breeding; they may be taken at ten days old, and brought up with the same food and management as Linnets, or other birds of the Finch kind; they are not very tender: only keep them clean, and there is no fear but they will thrive. And, after all, I cannot recommend them for pleasant cage-birds. If you regard his colours, he is as finely feathered as most birds; and in an aviary makes as pretty a show as the best of them.

He is seldom sick; but when he is, give him what you give Linnets or Chaffinches.

L I N N E T.

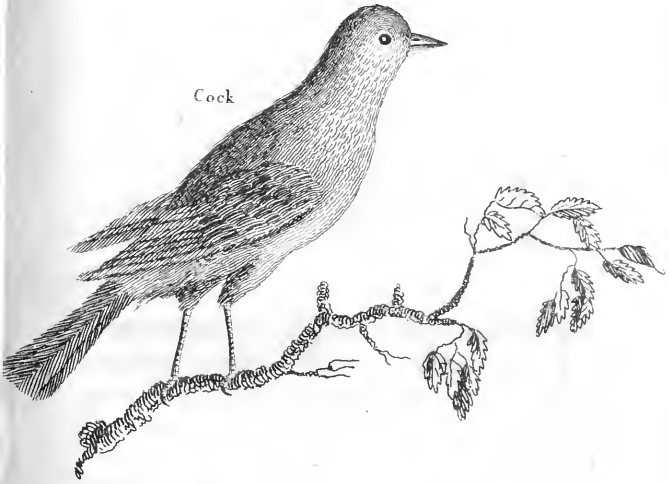
Description and Character.

THIS bird is so universally well known, that a particular description is unnecessary. It is in length, from the point of the bill to the end of the tail, five inches and a half long, and usually weighs about ten drachms.

For the sweetness of its singing, the Linnet is so much esteemed, that, by many persons, it is thought to excel all small birds. It has certainly a curious fine note, little inferior to the best of birds, and may be taught likewise to pipe, whistle, or the song of any other fine bird; but as its own is so good, that trouble is unnecessary: the natural note of any fine song-bird is ever to be preferred; but where the bird has but an indifferent song of his own, then to learn him to pipe, whistle, &c. is very pleasant, and well worth the trouble. It is pretty apt in learning, if you bring it up from the nest, and will take the Wood-Lark's song to perfection, or that of the Canary-Bird.

L I N N E T .

Cock



Hen





Distinguishing Marks of the Cock and Hen.

THE Cock bird of this kind may be known either old or young, by these two marks; first, the feathers on his back are much browner than those of the hen; secondly, by the white of the wing: take your Linnet when the wing feathers are grown, and stretch out his wing, holding his body fast with the other hand; then observe the white upon the three or four longest feathers; if it appears clear, bright, and broad, and reaches up to the quills, it is a sure sign of a cock-bird; for the white in the wing of the hen is much less, fainter, and narrower.

Time and Manner of building their Nest.

They build commonly in a thick bush, or hedge, and sometimes among furze-bushes, &c. making a small, pretty nest, the outside of bents, dried weeds, and other stubble matter, and the bottom all matted together; the inside of fine soft wool, mixed with downy stuff, gathered from dried plants, with a few horse-hairs, made exceeding neat and warm, on which she lays four, and sometimes five eggs, with fine red specks, especially at the blunt end; and has young ones by the middle of April or beginning of May.

Of the Young, how to order and bring them up.

SOME of these birds will have young ones three or four times a-year, especially if they be taken from them before they fly out of their nests.

They may be taken at ten days old, or sooner; put them in a small basket prepared for that purpose; be sure to keep them warm, and feed them once in two hours, from six in the morning till about six or seven at night: prepare rape-feed soaked in water ten or twelve hours, then pour off your water, and let it boil up in more clean water, scum and strain it; then bruise it very small, cleaning as many of the hulls from it as you can; then take a piece of the best white bread, first soak it in clean water, then boil it in a little milk, to a thick consistence; take one-third rape-feed, and mix them together, till it become a soft paste or crowd, making but little at a time, that they may have it fresh every day; because sour meat will throw the birds into a scouring, which often kills them: neither must their meat be too dry; for in such a case it will make them vent burn, and that is as bad as if they had been scoured: when they begin to pick about their meat, and feed themselves, set scalded rape-feed in their

cage, to wean them from the bread and milk as soon as possible; because sometimes feeding too long upon soft food will make them rotten. It will be a month or six weeks before they will be able to crack their seeds, and live entirely upon hard meat.

There are other sorts of food made use of in bringing up young Linnets, but this has been proved to answer as well as any.

When they are fully grown up, feed them with rap and Canary-seeds, three fourths rape, and one fourth Canary, it being the best food you can feed them with; you may give them a little hemp-feed at a time, but not too much, it being too fattening, and makes them dull and heavy; whereas a little now and then nourishes, and makes them chearful.

If you intend to learn them to whistle, let it be done when you feed them; for they will learn very much before they can crack hard feeds: or hang them under any bird you have a-mind they should learn his song; for these birds, when young, are exceeding apt for any song or tune; or they may be even taught to speak; for there is nothing so hard but labour and diligence will overcome.

Their Diseases and Cures.

THIS is a very healthful bird, and has been kept many years, without being subject to any malady; but sometimes he is troubled with melancholy, occasioned from a swelling at the end of his rump, from which, if ripe, you may with a needle let out the corruption, and anoint the part with the ointment of fresh butter and capon's grease, or take a bit of loaf-sugar moistened in your mouth, put it on the sore, and it will heal it: feed him for two or three days with the seeds and leaves of lettuce, beets, or the seeds of melon chop'd in pieces, which he will eat very greedily of; when you find him to mend, take the melon seeds, &c. away, and give him his old diet again; you may put into his water a blade of saffron, and white sugar-candy, till you perceive the bird to be entirely recovered.

The disease this bird is most troubled with is a scouring, occasioned by bad feeds, and many times for want of fresh water. There are three sorts of this distemper; the first very thin, and with a black substance in the middle, which is not very dangerous: the second is between a black and a white, but not so thin as the other, but very clammy and stinking; this is worse

than the former. It is recovered by giving the bird some melon-feed shred, lettuce and beet-seeds bruised, and in his water put liquorice or saffron. The third and worst sort of scouring is the white clammy, which is dangerous and mortal, if not looked after in time: for this give him first flax seeds, taking away all other feeds, then give him plantain feeds, if green, otherwise they will do him no good: for want of plantain-seeds, give him some of the leaves shred small, or a little bruised hemp-feed, putting into his water, as before, sugarcandy, liquorice, or a blade or two of saffron. You may give the bird, now and then, a small quantity of seeded chick-weed, and a little chalk. You must be diligent at the first to observe him when he is sick; for this third and worst sort of scouring, if it be not taken at the first appearance, immediately causeth him to droop, and, in two or three days, his stomach will be quite gone, and then all medicines are useless.

They are likewise subject to surfeits, occasioned either by cold, or from eating too greedily upon greens; especially a rank sort of chick weed, with broad leaves, and without seeds, which is hurtful both to old and young birds. This distemper may easily be perceived by seeing the bird pant, and heave his belly fast, and sit melancholy, with his feathers standing big, more puffed up than ordinary: he will

now also split and cast his feed about the cage, not caring to eat at all: to discover it likewise, blow the feathers on his belly, and you will perceive it swelled, transparent, full of little red veins, all his little bowels sinking down to the extreme parts of his body, and, if far gone, black, which generally brings death. The cure of this disease, if taken in time, is to keep him warm, and give him oat-meal amongst his feeds, for three or four days, in order to cleanse him, and put liquorice in his water; but, if he is too loose, instead of oat-meal, give him maw-feed, and bruised hemp-feed, being more binding, and at the same time a little saffron in his water; then for his meat, give him beets, and lettuce to feed on, or some of the herb mercury, which is very good against this distemper for any sick-bird: you may likewise give him melon-feed chopped small, and, at the bottom of the cage, lay some gravel with a little powder'd sugar, and a little ground oat-meal.

The last thing I shall take notice of is his moulting: careful nursing is the principal means of preserving birds under this malady, by keeping them from the cold or wind, which are very prejudicial to them at such a time; therefore be sure to keep him warm that he may not catch cold, which gives him a hoarseness. If the weather is very hot when the birds are in their moult, give them liquorice in their water

instead of saffron, and for their meat plantain and lettuce-feed; but none of that meat if it be cold weather: to cure his hoarseness, the best remedy is, to put some liquorice and a few anise-seeds in his water, and then to set him in a warm place.

RED-POLE; or, Red-Headed LINNET.

Description and Character.

THIS bird is about the size of the common Linnet: it is not a very fine bird for singing, but has a pretty chattering sort of song, though it cannot be called melodious.

The top of the head and breast of the cock is adorned with a remarkable shining red; the upper part of the body like the common Linnet; the lower part of the belly inclining to a white; the prime feathers of the wings and tail dusky; the tail about two inches long, and something forked; the utmost borders of the wing and tail feathers around are white; the legs and feet are dusky; the claws black and long, for the bigness of the bird; but the legs very short.

In this kind, the hen also hath a spot of red upon her head; but more faint than that of the cock, and of a saffron colour.

R E D - P O L E

Cock



Hen



They build much in the manner of the common Linnet; and feed upon canary, hemp, and rape-feed, as the Linnet, Gold-Finch, &c.

They are likewise taken with clap-nets, and lime-twigs, as they do Linnets, Gold-Finches, and other small birds.

T W I T E.

Description and Character.

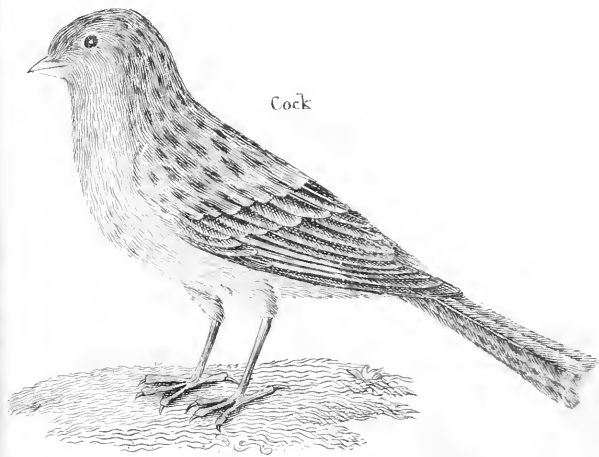
THIS bird is, in colour and make, something like the Linnet, but less: it is a bird vastly brisk and merry, that is always a singing; therefore they hang him among other birds, to provoke them to sing.

The cock has a very short ash-coloured bill, the legs black, and has a curious red spot upon his rump, which the hen hath not.

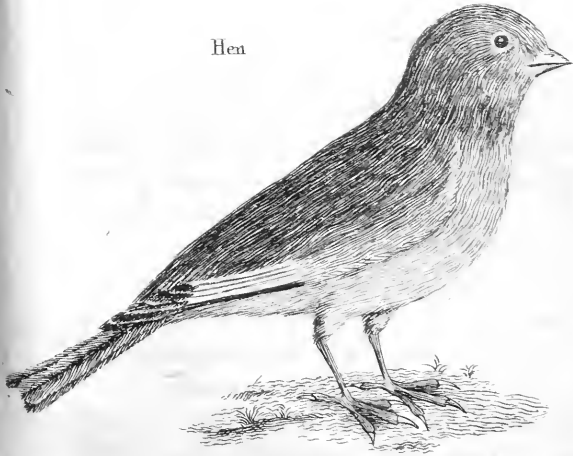
It is a bird not known to breed in this country; they visit some parts of England in the Winter, and go away again in the Spring; but what place they come from, or whether they go (as they say) to them is unknown: they are said to be very common in some parts of France, and are called there by a name which with us signifies the Lesser Linnet; and they say their eggs are like the eggs of that bird, but less.

The bird-catchers take them as they do Linnets, &c. They feed upon canary and rape-feed. It is a pretty familiar, gentle-natured bird, and by some reckoned well worth keeping.

T W I T E

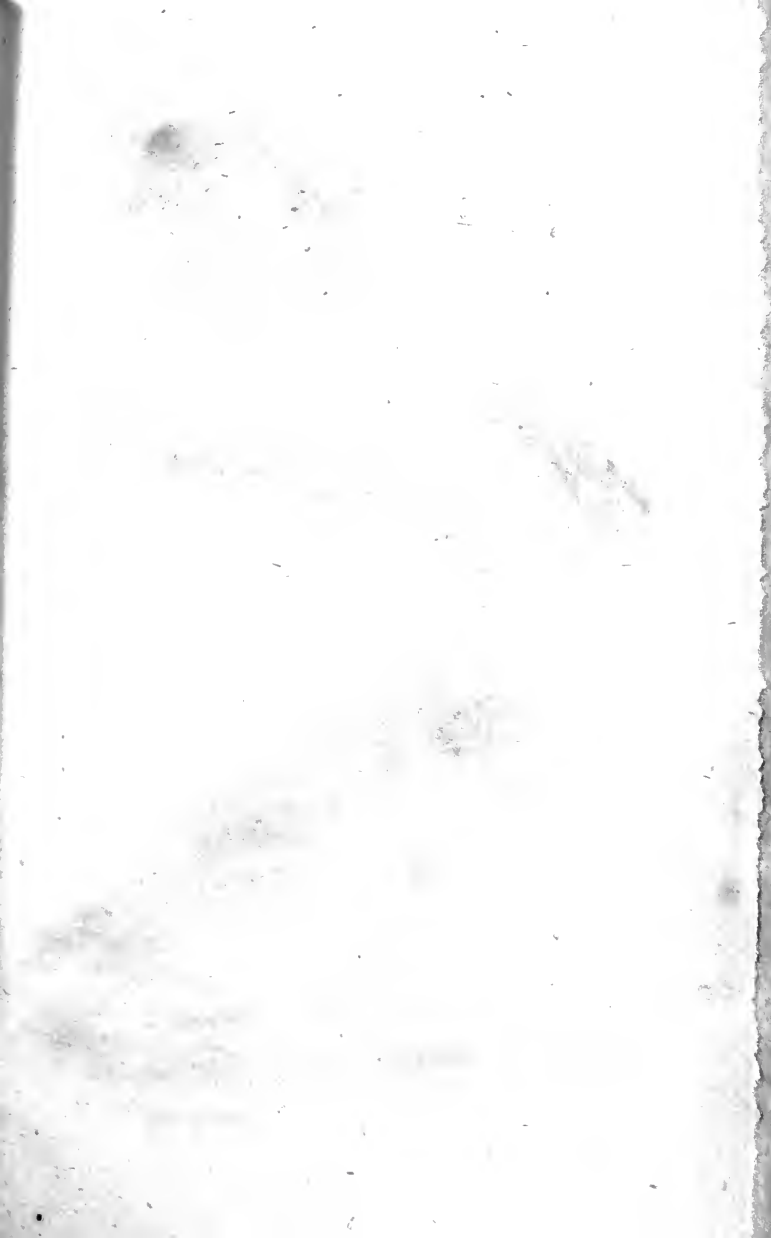


Cock



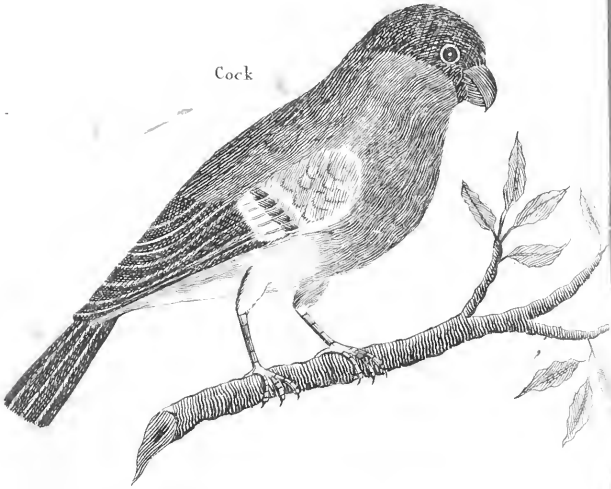
Hen



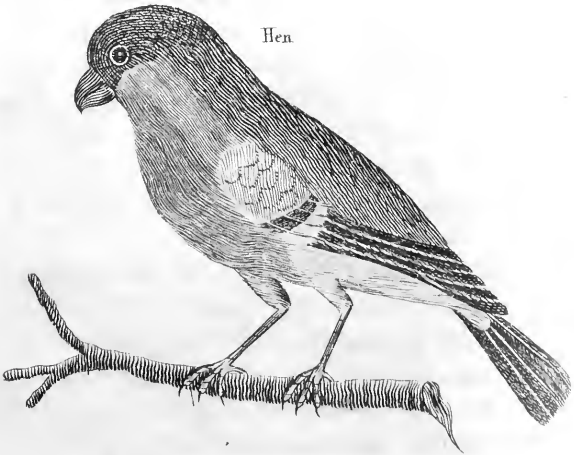


BULLFINCH

Cock



Hen



BULL-FINCH.

Description and Character.

THE Bull-Finch at full growth, from the point of the bill to the tip of the tail, is six inches, of which the tail is two inches long; in weight, thirteen drachms: they have a black short bill, very strong and crooked, the upper part hanging over the under, like that of a hawk, the tongue short, and the eyes of a hazel colour; the head and neck, in proportion to the body, larger than in the generality of small birds, from which they may have their name. In some places they are called Nopes, in others Thick-Bills, and in some Hoops: this last name they have probably from their wild hooping sort of note.

They are very docile birds, and will nearly imitate the sound of a pipe or whistle of a man; the hen learning after the pipe or whistle as well as the cock. The peculiar excellence of these birds is, that they never forget what they have once learned, though they hang among ever so many birds; some have been taught to speak several words very distinctly.

It is a bird much esteemed for beauty and singing; for in the former he equals most, and in the latter, when well taught, excels all small birds; they have been frequently sold from five to ten guineas a bird.

They are in many parts very scarce, which seems to be occasioned by a great many of them being shot by gardeners, and others, in the Spring-time, on account of their destroying the early buds of the fruit-trees; such as the apple, pear, peach, and other garden trees, of which they are exceeding fond; and, by that means, do great damage to the gardeners, who therefore hate and destroy them, as a great pest of their gardens. It is said in some parts of England, a reward is given by the church-wardens for every Bull-Finch that is killed; if so, that may be assigned as one reason of their scarcity, being less common than most other singing birds that breed in that country.

Distinguishing Marks of the Cock and Hen.

THE cock is in bigness equal to the hen, but hath a flatter crown, and excels her in the beauty of his colours; a lovely scarlet or crimson adorns his breast, the feathers on the crown of the head, and those that compass the bill, are of a brighter black than those of the hen;

part of the neck, shoulders, and back, are of a blueish ash-colour, shaded with red; the belly and rump white, some of the quill-feathers have their outward shafts red, and the inner of a fine glossy black; others have their exterior edges white, which makes a sort of white line or cross-bar upon each wing; the tail is of a shining black, the legs of a dusky colour, and the claws black.

If both are seen together, the one may very easily be known from the other, the colours in the cock being much more resplendent than in the hen; but whilst these birds are young, it is more difficult to distinguish them: one of the surest ways is, to pull a few feathers from their breast when they are about three weeks old; and, in about ten or twelve days after, you will perceive the feathers, where you have pulled, to come of a curious red, if a cock; if a hen, they will come off a paleish brown.

Time and Manner of building their Nest.

THE Bull-Finch breeds late in the Spring, seldom has young ones before the end of May, or beginning of June; she builds in an orchard, wood, or park, where there are plenty of trees; her nest is not very common to be found; it is an ordinary mean fabric, made with seemingly

little art ; on which she lays four or five eggs of a blueish colour, spotted at the biggest end, with large dark brown, and faint reddish spots.

Of the Young, how to order and bring them up.

THESE birds must not be taken too young, let them be well feathered first, at least twelve days old ; keep them warm and clean. These birds, when young, are fed as the Linnet, Chaffinch, &c. with bread, milk, and rape-feed, made into a paste : feed them every two hours from morning till night, making but little at a time, that they may have fresh victuals every day. When they are grown up, feed them with rape and Canary-feed, three-fourths rape, and one-fourth Canary ; it is the best food you can feed them with.

- If at any time you perceive them out of order, put a blade of saffron in their water ; and you may try them with the Wood-Lark's meat, or fine hemp-feed ; but keep mostly to rape and Canary-feed mixed together, the last of which is most acceptable to them.

You must remember frequently to pipe, whistle, or talk to them, whilst they are young, what you intend they should learn, and you will find them soon take it.



VIRGINIA NIGHTINGALE



Cock



Hen

VIRGINIA NIGHTINGALE,

CALLED THE

RED-BIRD, or RED-GROSBEAK.

THE Virginia Nightingale in bigness nearly resembles the Song-Thrush; the bill is of a paleish red or dusky colour, encompassed with a border of black feathers extended below the chin; the head pretty large, upon which there grows a large pyramidical tuft, or towering crest, of a bright scarlet, with which colour the neck, breast, and belly are adorned; the back, and tips or points of the wings and tail, are more faint, and rather of a pale brownish colour.

This bird has many strange gesticulations when it views its image in a glass, by raising and lowering its crest, shaking its wings, and setting up its tail after the manner of the Peacock, making a hissing noise, and striking at the glass with its bill.

There is a surprizing strength in the bill of this little creature, as is seen from its cracking the stones of fruit with the utmost ease and expedition, such as almonds, olives, &c. the kernels of which they are very fond of.

These birds are found chiefly in Virginia, New England, and several parts of North-America, from whence they are frequently brought over into England, and very highly valued for their singing, as well as for the elegance of their colours, which makes them sometimes sell at a great price.

They sing very agreeably, and some of their notes are much like those of the Nightingale, from whence it is supposed to derive the name of the Virginia Nightingale.

The hen, as in all other birds, is not so beautiful in her colours as the cock, being more brown, with only a tincture of red; yet, when in cages, she sings along with the cock, and is brought over with him.

They catch them in the same manner as we do all our other small birds, by removing the snow, and baiting the places where they frequent, with such food as they usually feed upon.

The breeding of them has been attempted, but never could as yet be brought to any perfection.

They feed upon hemp and Canary-seeds, and will eat also the Wood-Lark's and Nightingale's food.

When they are sick, a spider or meal-worm will relieve them.

*Experiments and Observations on the Singing of
Birds: extracted from a curious Letter on that
Subject, written by the Honourable DAINES
BARRINGTON, to M. MATY, the Secretary of
the Royal Society.*

S I R,

AS the experiments and observations I mean to lay before the Royal Society relate to the singing of birds, which is a subject that hath never before been scientifically treated of *, it may not be improper to prefix an explanation of some uncommon terms, which I shall be obliged to use, as well as others which I have been under a necessity of coining.

To chirp, is the first sound which a young bird utters as a cry for food, and is different in all nestlings, if accurately attended to; so that the hearer may distinguish of what species the birds are, though the nest may hang out of his sight and reach.

* Kircher, indeed, in his *Musurgia*, hath given us some few passages in the song of the Nightingale, as well as the call of a Quail and Cuckow, which he hath engraved in musical characters. These instances, however, only prove that some birds have in their song notes which correspond with the intervals of our common scale of the musical octave.

This cry is, as might be expected, very weak and querulous; it is dropped entirely as the bird grows stronger, nor is afterwards intermixed with its song, the chirp of a Nightingale (for example) being hoarse and disagreeable.

To this definition of the chirp, I must add, that it consists of a single sound, repeated at very short intervals, and that it is common to nestlings of both sexes.

The call of a bird, is that sound which it is able to make when about a month old: it is, in most instances (which I happen to recollect), a repetition of one and the same note; is retained by the bird as long as it lives; and is common generally to both the cock and hen.

The next stage in the notes of a bird is termed by the bird-catchers *recording*; which word is probably derived from a musical instrument formerly used in England, called a *recorder*.

This attempt in the nestling to sing, may be compared to the imperfect endeavour in a child to babble. I have known instances of birds beginning to record when they were not a month old.

This first essay does not seem to have the least rudiments of the future song; but as the bird grows older and stronger, one may begin to perceive what the nestling is aiming at.

Whilst the scholar is thus endeavouring to form his song, when he is once sure of a

passage, he commonly raises his tone, which he drops again when he is not equal to what he is attempting; just as a singer raises his voice, when he not only recollects certain parts of a tune with precision, but knows that he can execute them.

What the nestling is not thus thoroughly master of, he hurries over, lowering his tone, as if he did not wish to be heard, and could not yet satisfy himself.

I have never happened to meet with a passage in any writer which seems to relate to this stage of singing in a bird, except, perhaps, in the following lines of Statius:

— *Nunc vclucrum novi*
Questus, inexpertumque carmen,
Quod tacitâ statuere brumâ.

Stat. Sylv. L. iv. Ecl. 5.

A young bird commonly continues to record for ten or eleven months, when he is able to execute every part of his song, which afterwards continues fixed, and is scarcely ever altered.

When the bird is thus become perfect in his lesson, he is said to sing his song round, or in all its varieties of passages, which he connects together, and executes without a pause.

I would therefore define a bird's song to be a succession of three or more different notes,

which are continued without interruption during the same interval with a musical bar of four crochets in an adagio movement, or whilst a pendulum swings four seconds.

By the first requisite in this definition, I mean to exclude the call of a Cuckow or clucking of a hen *, as they consist of only two notes ; while the short bursts of singing birds, contending with each other (called *jerks* by the bird-catchers), are equally distinguished from what I term *song*, by their not continuing for four seconds.

As the notes of a Cuckow and Hen, therefore, though they exceed what I have defined the call of a bird to be, do not amount to its song, I will, for this reason, take the liberty of terming such a succession of two notes as we hear in these birds, *the varied call*.

Having thus settled the meaning of certain words, which I shall be obliged to make use of, I shall now proceed to state some general principles with regard to the singing of birds, which seem to result from the experiments I have been making for several years, and under a great variety of circumstances.

Notes in birds are no more innate than lan-

* The common hen, when she lays, repeats the same note very often, and concludes with the sixth above, which she holds for a longer time.

guage is in man, and depend entirely upon the master under which they are bred, as far as their organs will enable them to imitate the sounds which they have frequent opportunities of hearing.

Most of the experiments I have made on this subject have been made with cock Linnets, which were fledged and nearly able to leave their nest, on account not only of this bird's docility and great powers of imitation, but because the cock is easily distinguished from the hen at that early period, by the superior whiteness in the wing.

In many other sorts of singing birds, the male is not at the age of three weeks so certainly known from the female; and if the pupil turns out to be a hen,

— *ibi omnis*
Effusus labor.

The Greek poets made a songster of the *τετλιξ*, whatever animal that may be; and it is remarkable that they observed the female was incapable of singing as well as hen birds:

Εἶπ' εἰσιν οἱ τετλιγες ἢν εὐδαιμονες,
Ὡν τὰς γυναιξὲν ἔδ' ὅτιν' ἔφωνον ἐνι;
Comicorum Græcorum Sententiæ, p. 452.

Ed. Steph.

I have indeed known an instance or two of a

making out something like the song of her species; but these are as rare as the common hen's being heard to crow.

I rather suspect also, that those Parrots, Magpies, &c. which either do not speak at all, or very little, are hens of those species.

I have educated nestling Linnets under the three best singing Larks, the Sky-Lark, Wood-Lark, and Tit Lark; every one of which, instead of the Linnet's song, adhered entirely to that of their respective instructors.

When the note of the Tit-lark-Linnet* was thoroughly fixed, I hung the bird in a room with two common Linnets for a quarter of a year, which were full in song: the Titlark-Linnet, however, did not borrow any passages from the Linnet's song, but adhered steadfastly to that of the Tit-Lark.

I had some curiosity to find out whether an European nestling would equally learn the note of an African bird; I therefore educated a young Linnet under a vengolina †, which imi-

* I thus call a bird which sings notes he would not have learned in a wild state: thus by a Skylark-Linnet, I mean a Linnet with the Sky-Lark song; a Nightingale-Robin, a Robin with the Nightingale's song, &c.

† This bird seems not to have been described by any of the ornithologists; it is of the Finch tribe, and about the same size with our Aberdivine (or Siskin). The colours are grey

tated its African master so exactly, without any mixture of the Linnet song, that it was impossible to distinguish the one from the other.

This Vengolina-Linnet was absolutely perfect, without ever uttering a single note by which it could have been known to be a Linnet. In some of my other experiments, however, the nestling Linnet retained the call of its own species, or what the bird-catchers term the Linnet's chuckle, from some resemblance to that word when pronounced.

I have before stated, that all my nestling Linnets were three weeks old when taken from the nest; and by that time they frequently learn their own call from the parent birds, which I have mentioned to consist of only a single note.

To be certain, therefore, that a nestling will not have even the call of its species, it should be taken from the nest when only a day or two old; because, though nestlings cannot see till the seventh day, yet they can hear from the instant they are hatched; and probably, from that circumstance, attend to sounds more than they do afterwards, especially as the call

and white, and the cock hath a bright yellow spot upon the rump. It is a very familiar bird, and sings better than any of those which are not European, except the American Mocking-Bird.

of the parents announces the arrival of their food.

I must own that I am not equal myself, nor can I procure any person to take the trouble of breeding up a bird of this age, as the odds against its being reared are almost infinite. The warmth indeed of incubation may be in some measure supplied by cotton and fires; but these delicate animals require in this state being fed almost perpetually, whilst the nourishment they receive should not only be prepared with great attention, but given in very small portions at a time.

Though I must admit, therefore, that I have never reared myself a bird of so tender an age, yet I have happened to see both a Linnæus and a Gold-Finch which were taken from their nests when only two or three days old.

The first of these belonged to Mr Matthews, an apothecary at Kensington, which, from a want of other sounds to imitate, almost articulated the words *pretty boy*, as well as some other short sentences. I heard the bird myself repeat the words *pretty boy*; and Mr Matthews assured me that he had neither the note nor call of any bird whatsoever.

This talking Linnæus died last year, and many people went from London to hear him speak.

The Gold-Finch I have before mentioned was reared in the town of Knighton in Rad-

norshire, which I happened to hear as I was walking by the house where it was kept.

I thought, indeed, that a Wren was singing, and I went into the house to inquire after it, as that little bird seldom lives long in a cage.

The people of the house, however, told me, that they had no bird but a Gold-Finch, which they conceived to sing its own natural note, as they called it; upon which I staid a considerable time in the room, while its notes were merely those of a Wren, without the least mixture of the Gold-Finch.

On further inquiries, I found that the bird had been taken from the nest when only two or three days old; that it was hung in a window which was opposite to a small garden, whence the nestling had undoubtedly acquired the notes of the Wren, without having had any opportunity of learning even the call of the Gold-Finch.

These facts which I have stated seem to prove very decisively that birds have not any innate ideas of the notes which are supposed to be peculiar to each species. But it will possibly be asked, why in a wild state they adhere so steadily to the same thing, insomuch that it is well known, before the bird is heard, what notes you are to expect from him?

This however arises entirely from the nestling's attending only to the instruction of the

parent bird, whilst it disregards the notes of all others, which may perhaps be singing round him.

Young Canary-Birds are frequently reared in a room where there are many other sorts; and yet I have been informed that they only learn the song of the parent cock.

Every one knows that the common house Sparrow, when in a wild state, never does any thing but chirp: this, however, does not arise from want of powers in this bird to imitate others, but because he only attends to the parental note.

But, to prove this decisively, I took a common Sparrow from the nest when it was fledged, and educated him under a Linnet: the bird, however, by accident, heard a Gold-Finch also, and his song was therefore a mixture of the Linnet and Gold-Finch.

I have tried several experiments, in order to observe from what circumstances birds fix upon any particular note when taken from the parents; but cannot settle this with any sort of precision, any more than at what part of their recording they determine upon the song to which they will adhere.

I educated a young Robin under a very fine Nightingale; which, however, began already to be out of song, and was perfectly mute in less than a fortnight.

This Robin afterwards sung three parts in four Nightingale; and the rest of his song was what the bird-catchers call *rubbish*, or to no particular note whatsoever.

I hung this Robin nearer to the Nightingale than to any other bird; from which first experiment I conceived that the scholar would imitate the master which was at the least distance from him.

From several other experiments, however, which I have since tried, I find it to be very uncertain what notes the nestling will most attend to, and often their song is a mixture; as in the instance which I before stated of the Sparrow.

I must own also, that I conceived, from the experiment of educating the Robin under a Nightingale, that the scholar would fix upon the note which it first heard when taken from the nest; I imagined likewise, that, if the Nightingale had been fully in song, the instruction for a fortnight would have been sufficient.

I have, however, since tried the following experiment; which convinces me so much depends upon circumstances, and perhaps caprice in the scholar, that no general inference or rule can be laid down with regard to either of these suppositions.

I educated a nestling Robin under a Wood-Lark Linnet which was full in song, and hung

very near to him for a month together; after which the Robin was removed to another house, where he could only hear a Skylark-Linnet. The consequence was, that the nestling did not sing a note of Wood-Lark (though I afterwards hung him again just above the Woodlark-Linnet) but adhered entirely to the song of the Skylark-Linnet.

Having thus stated the result of several experiments, which were chiefly intended to determine whether birds had any innate ideas of the notes, or of song, which is supposed to be peculiar to each species, I shall now make some general observations on their singing; though perhaps the subject may appear to many a very minute one.

Every poet, indeed, speaks with raptures of the harmony of the groves; yet those even who have good musical ears seem to pay little attention to it but as a pleasing noise.

I am also convinced (though it may seem rather paradoxical), that the inhabitants of London distinguish more accurately, and know more on this head, than of all the other parts of the island taken together.

This seems to arise from two causes.

The first is, that we have not more musical ideas which are innate than we have of language; and therefore those even who have the happiness to have organs which are capable of

receiving a gratification from this sixth sense (as it hath been called by some) require however the best instruction.

The orchestra of the opera, which is confined to the metropolis, hath diffused a good style of playing over the other bands of the capital, which is, by degrees, communicated to the fiddler and ballad-singer in the streets. The organs in every church, as well as those of the Savoyards, contribute likewise to this improvement of musical faculties in the Londoners.

If the singing of the ploughman in the country is therefore compared with that of the London blackguard, the superiority is infinitely on the side of the latter; and the same may be observed in comparing the voice of a country girl and London house-maid, as it is very uncommon to hear the former sing tolerably in tune.

I do not mean by this to assert that the inhabitants of the country are not born with as good musical organs; but only, that they have not the same opportunities of learning from others who play in tune themselves.

The other reason for the inhabitants of London judging better in relation to the song of birds, arises from their hearing each bird sing distinctly, either in their own or their neighbours shops; as also from a bird continuing much longer in song whilst in a cage than when

at liberty; the cause of which I shall endeavour hereafter to explain.

Those who live in the country, on the other hand, do not hear birds sing in their woods for above two months in the year, when the confusion of notes prevents their attending to the song of any particular bird; nor does he continue long enough in a place for the hearer to recollect his notes with accuracy.

Besides this, birds in the Spring sing very loud indeed; but they only give short jerks, and scarcely ever the whole compass of their song.

For these reasons, I have never happened to meet with any person who had not resided in London, whose judgment or opinion on this subject I could the least rely upon; and a stronger proof of this cannot be given, than that most people who keep Canary-Birds do not know that they sing chiefly either the Tit-Lark or Nightingale's notes*.

Nothing, however, can be more marked than the note of a Nightingale called its *jug*, which most of the Canary-Birds brought from the Tyrol commonly have, as well as several Nightingale

* I once saw two of these birds which came from the Canary Islands; neither of which had any song at all; and I have been informed, that a ship brought a great many of them not long since, which sang as little.

strokes, or particular passages in the song of that bird.

I mention this superior knowledge in the inhabitants of the capital, because I am convinced, that, if others are consulted in relation to the singing of birds, they will only mislead, instead of giving any material or useful information*.

Birds in a wild state do not commonly sing above ten weeks in the year; which is then also confined to the cocks of a few species. I conceive that this last circumstance arises from the superior strength of the muscles of the larynx.

I procured a cock Nightingale, a cock and hen Black-Bird, a cock and hen Rook, a cock Linnet, as also a cock and hen Chaffinch, which that very eminent anatomist, Mr Hunter, F.R.S. was so obliging as to dissect for me, and begged that he would particularly attend to the state of the organs in the different birds, which might be supposed to contribute to singing.

Mr Hunter found the muscles of the larynx to be stronger in the Nightingale than in any other bird of the same size; and in all those instances (where he dissected both cock and

* As it will not answer to catch birds with clap-nets any where but in the neighbourhood of London, most of the birds which may be heard in a country town are nestlings, and consequently cannot sing the supposed natural song in any perfection.

hen), that the same muscles were stronger in the cock.

I sent the cock and hen Rook, in order to see whether there would be the same difference in the cock and hen of a species which did not sing at all. Mr Hunter, however, told me, that he had not attended so much to their comparative organs of voice as in the other kinds; but that, to the best of his recollection, there was no difference at all.

Strength, however, in these muscles, seems not to be the only requisite; the birds must have also great plenty of food, which seems to be proved sufficiently by birds in a cage singing the greatest part of the year, when the wild ones do not (as I observed before) continue in song above ten weeks.

The food of singing birds consists of plants, insects, or seeds; and, of the two first of these, there is infinitely the greatest profusion in the Spring.

As for seeds, which are to be met with only in the Autumn, I think they cannot well find any great quantities of them in a country so cultivated as England is; for the seeds of meadows are destroyed by mowing; in pastures, by the bite in the cattle; and in arable, by the plough, when most of them are buried too deep for the bird to reach them.

I know well that the singing of the cock bird in the Spring is attributed by many to the motive only of pleasing its mate during incubation.

Those, however, who suppose this, should recollect, that much the greater part of birds do not sing at all: why should their mate, therefore, be deprived of this solace and amusement?

The bird in a cage, which, perhaps, sings nine or ten months in a year, cannot do so from this inducement; and, on the contrary, it arises chiefly from contending with another bird, or, indeed, against almost any sort of continued noise.

Superiority in song gives to birds a most amazing ascendancy over each other; as is well known to the bird-catchers, by the fascinating power of their call-birds, which they contrive should moult prematurely for the purpose.

But to show decisively that the singing of a bird in the Spring does not arise from any attention to its mate, a very experienced catcher of Nightingales hath informed me that some of these birds have *jerked* the instant they were caught. He hath also brought to me a Nightingale which had been but a few hours in a cage, and which burst forth in a roar of song.

At the same time, this bird is so fulky on his first confinement, that he must be crammed for seven or eight days, as he will otherwise not feed himself: it is also necessary to tie his wings, to prevent his killing himself against the top or sides of the cage.

I believe there is no instance of any bird's singing which exceeds our Black-Bird in size; and possibly this may arise from the difficulty of its concealing itself, if it called the attention of its enemies, not only by bulk, but by the proportionable loudness of its notes.

I should rather conceive, it is for the same reason that no hen-bird sings, because this talent would be still more dangerous during incubation; which may possibly also account for the inferiority in point of plumage.

I TRIED once an experiment, which might indeed have possibly made some alteration in the tone of a bird, from what it might have been when the animal was at its full growth, by procuring an operator who castrated a young Black-Bird of about six weeks old; as it died, however, soon afterwards, and I have never repeated the experiment, I can only conjecture with regard to what might have been the consequences of it.

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Both Pliny and the London poulterers agree, that a capon does not crow, which I should conceive to arise from the muscles of the larynx never acquiring the proper degree of strength, which seems to be requisite to the singing of a bird, from Mr Hunter's dissections.

But it will perhaps be asked, why this operation should not improve the notes of a nestling, as much as it is supposed to contribute to the greater perfection of the human voice?

To this I answer, that castration by no means insures any such consequence; for the voices of much the greater part of Italian eunuchs are so indifferent, that they have no means of procuring a livelihood but by copying music; and this is one of the reasons why so few compositions are published in Italy, as it would starve this resource of society.

But it may be said, that there hath been a Farinelli and a Manzoli, whose voices were so distinguishedly superior.

To this I again answer, that the catalogue of such names would be a very short one; and that we attribute those effects to castration, which should rather be ascribed to the education of those singers.

Castration commonly leaves the human voice at the same pitch as when the operation is performed; but the eunuch, from that time, is

educated with a view only to his future appearance on the opera stage; he therefore manages his voice to greater advantage than those who have not so early and constant instruction.

Considering the size of many singing birds, it is rather amazing at what a distance their notes may be heard.

I think I may venture to say, that a Nightingale may be very clearly distinguished at more than half a mile, if the evening is calm. I have also observed the breath of a Robin (which exerted itself) so condensed in a frosty morning, as to be very visible.

To make the comparison, however, with accuracy, between the loudness of a bird's and the human voice, a person should be sent to the spot from whence the bird is heard; I should rather conceive that, upon such trial, the Nightingale would be distinguished further than the man.

It must have struck every one, that, in passing under a house where the windows are shut, the singing of a bird is easily heard, when at the same time a conversation cannot be so, tho' an animated one.

Most people, who have not attended to the notes of birds, suppose that those of every species sing exactly the same notes and passages, which is by no means true, though it is admitted that there is a general resemblance.

Thus the London bird-catchers prefer the song of the Kentish Gold-Finches, but Essex Chaffinches: and when they sell the bird to those who can thus distinguish, inform the buyer that it hath such a note, which is very well understood between them.

Some of the Nightingale fanciers also prefer a Surry bird to those of Middlesex.

These differences in the song of birds, of the same species, cannot perhaps be compared to any thing more apposite than the varieties of provincial dialects.

The Nightingale seems to have been fixed upon, almost universally, as the most capital of singing birds, which superiority it certainly may boldly challenge: one reason, however, of this bird's being more attended to than others, is, that it sings in the night*.

Hence Shakespeare says,

“ The Nightingale, if she should sing by day,
When every goose is cackling, would be thought
No better a musician than the Wren.”

The song of this bird hath been described,

* The Wood-Lark and Red-Sparrow sing likewise in the night; and from hence, in the neighbourhood of Shrewsbury, the latter hath obtained the name of the *Willow-Nightingale*. Nightingales, however, and these two other birds, sing also in the day, but are not then distinguished in the general concert,

and expatiated upon, by several writers, particularly Pliny and Strada.

As I must own, however, that I cannot affix any precise ideas to either of these celebrated descriptions, and as I once kept a very fine bird of this sort for three years, with very particular attention to its song, I shall endeavour to do it the best justice I am capable of.

In the first place, its tone is infinitely more mellow than that of any other bird, though, at the same time, by a proper exertion of its musical powers, it can be excessively brilliant.

When this bird *sang its song round*, in its whole compass, I have observed sixteen different beginnings and closes, at the same time that the intermediate notes were commonly varied in their succession with such judgment as to produce a most pleasing variety.

The bird which approaches nearest to the excellence of the Nightingale in this respect is the Sky-Lark; but then the tone is infinitely inferior in point of mellowness: most other singing birds have not above four or five changes.

The next point of superiority in a Nightingale is its continuance of song, without a pause, which I have observed sometimes not to be less than twenty seconds. Whenever respiration, however, became necessary, it was taken with as much judgment as by an opera singer.

The Sky-Lark again, in this particular, is only second to the Nightingale*.

* I shall here insert a table, by which the comparative merit of the British singing birds may be examined; the idea of which I have borrowed from *Monf. de Piles*, in his *Cours de Peinture par Principes*. I shall not be surpris'd, however, if, as he suggests, many may disagree with me about particular birds, as he supposes they will do with him concerning the merits of painters.

As I have five columns, instead of the four which *M. de Piles* uses, I make 20 the point of absolute perfection, instead of 16, which is his standard.

	Mellowness of tone.	Spighly notes.	Plaintive notes.	Compass.	Execution.
Nightingale, - - -	19	14	19	19	19
Sky-Lark, - - -	4	19	4	18	18
Wood-Lark, - - -	18	4	17	12	8
Tit-Lark, - - -	12	12	12	12	12
Linnet, - - -	12	16	12	16	13
Gold-Finch, - - -	4	19	4	12	12
Chaffinch, - - -	4	12	4	8	8
Green-Finch, - - -	4	4	4	4	6
Hedge-Sparrow, - - -	6	0	6	4	4
Aberdavin (or Siskin), - - -	2	4	0	4	4
Red-Pole, - - -	0	4	0	4	4
Thrush, - - -	4	4	4	4	4
Black-Bird, - - -	4	4	0	2	2
Robin, - - -	6	16	12	12	12
Wren, - - -	0	12	0	4	4
Reed-Sparrow, - - -	0	4	0	2	2
Black-Cap, or the Norfolk Mock-Nightingale, - - -	14	12	12	14	14

I have made no mention of the Bull-Finch in this table, which is commonly considered as a singing bird; because its wild

And here I must again repeat, that what I describe is from a caged Nightingale; because those which we hear in the Spring are so rank, that they seldom sing any thing but short and loud jerks, which consequently cannot be compared to the notes of a caged-bird, as the instrument is overstrained.

I must also here observe, that my Nightingale was a very capital bird; for some of them are so vastly inferior, that the bird-fanciers will not keep them, branding them with the name of *Frenchmen*.

But it is not only in tone and variety that the Nightingale excels; the bird also sings, (if I may so express myself) with superior judgment and taste.

I have therefore commonly observed, that my Nightingale began softly, like the ancient orators; reserving its breath to swell certain notes,

note, without instruction, is a most jarring and disagreeable noise.

I have likewise omitted the Red-Start (which is called by the French *le Rossignol de Muraille*), as I am not sufficiently acquainted with its-song, though it is admired by many. I should rather conceive, however, with Zinanni, that there is no very extraordinary merit in the notes.

The London bird-catchers also sell sometimes the Yellow-Hammer, Twite, and Brambling, as singing birds; but none of these will come within my definition of what may be deemed so.

which by this means had a most astonishing effect, and which eludes all verbal description.

I have indeed taken down certain passages which may be reduced to our musical intervals; but though by these means one may form an idea of some of the notes used, yet it is impossible to give their comparative durations in point of musical tune, upon which the whole effect must depend.

I once procured a very capital player on the flute to execute the notes which Kircher hath engraved in his *Misurgia*, as being used by the Nightingale; when, from want of not being able to settle their comparative duration, it was impossible to observe any traces almost of the Nightingale's song.

It may not be improper here to consider, whether the Nightingale may not have a very formidable competitor in the American Mocking-Bird; though almost all travellers agree, that the concert in the European woods is superior to that of the other parts of the globe.

As birds are now annually imported in great numbers from Asia, Africa, and America, I have frequently attended to their notes, both singly and in concert, which certainly are not to be compared to those of Europe.

Thomson, the poet, (whose observations in natural history are much to be depended upon) makes this superiority in the European birds to

be a sort of compensation for their great inferiority in point of gaudy plumage. Our Gold-Finch, however, joins to a very brilliant and pleasing song, a most beautiful variety of colours in its feathers.

It must be admitted, that foreign birds, when brought to Europe, are often heard to a great disadvantage; as many of them, from their great tameness, have certainly been brought up by hand; the consequence of which I have already stated from several experiments. The soft-billed birds also cannot be well brought over, as the *succedaneum* for insects (their common food) is fresh meat, and particularly the hearts of animals.

I have happened, however, to hear the American Mocking-Bird in great perfection at Messrs Vogle's and Scott's in Love-lane, Eastcheap.

This bird is believed to be still living*, and hath been in England these six years. During the space of a minute, he imitated the Wood-Lark, Chaffinch, Black-Bird, Thrush, and Sparrow. I was told also, that he would bark like a dog; so that the bird seems to have no choice in his imitations, though his pipe comes nearest to our Nightingale of any bird I have yet met with.

* 1773.

With regard to the original notes, however, of this bird, we are still at a loss; as this can only be known by those who are accurately acquainted with the song of the other American birds.

Kalm indeed informs us, that the natural song is excellent*; but this traveller seems not to have been long enough in America to have distinguished what were the genuine notes: with us, mimics do not often succeed but in imitations.

I have little doubt, however, but that this bird would be fully equal to the song of the Nightingale in its whole compass; but then, from the attention which the *mocker* pays to any sort of disagreeable noises, these capital notes would be always debased by a bad mixture.

We have one mocking-bird in England, which is the Sky-Lark; as, contrary to a general observation I have before made, this bird will catch the note of any other which hangs near it, even after the Sky-Lark note is *fixed*. For this reason, the bird-fanciers often place the Sky-Lark next one which hath not been long caught, in order, as they term it, to keep the caged Sky-Lark *honest*.

The question, indeed, may be asked, why the wild Sky-Lark, with these powers of imi-

tation, ever adheres to the parental note? but it must be recollected, that a bird, when at liberty, is for ever shifting its place, and consequently, does not hear the same notes eternally repeated as when it hangs in a cage near another. In a wild state, therefore, the Sky-Lark adheres to the parental notes, as the parent cock attends the young ones, and is heard by them for so considerable a time.

I am aware also, that it may be asked, how birds originally came by the notes which are peculiar to each species? My answer, however, to this is, that the origin of the notes of birds, together with its gradual progress, is as difficult to be traced as that of the different languages in nations.

The loss of the parent-cock, at the critical time for instruction, hath undoubtedly produced those varieties, which I have before observed are in the song of each species; because then the nestling hath either attended to the song of some other birds; or, perhaps, invented some new notes of its own, which are afterwards perpetuated from generation to generation, till similar accidents produce other alterations. The organs of some birds also are probably so defective, that they cannot imitate properly the parental note, as some men can never articulate as they should do. Such defects in the parent bird must again occasion va-

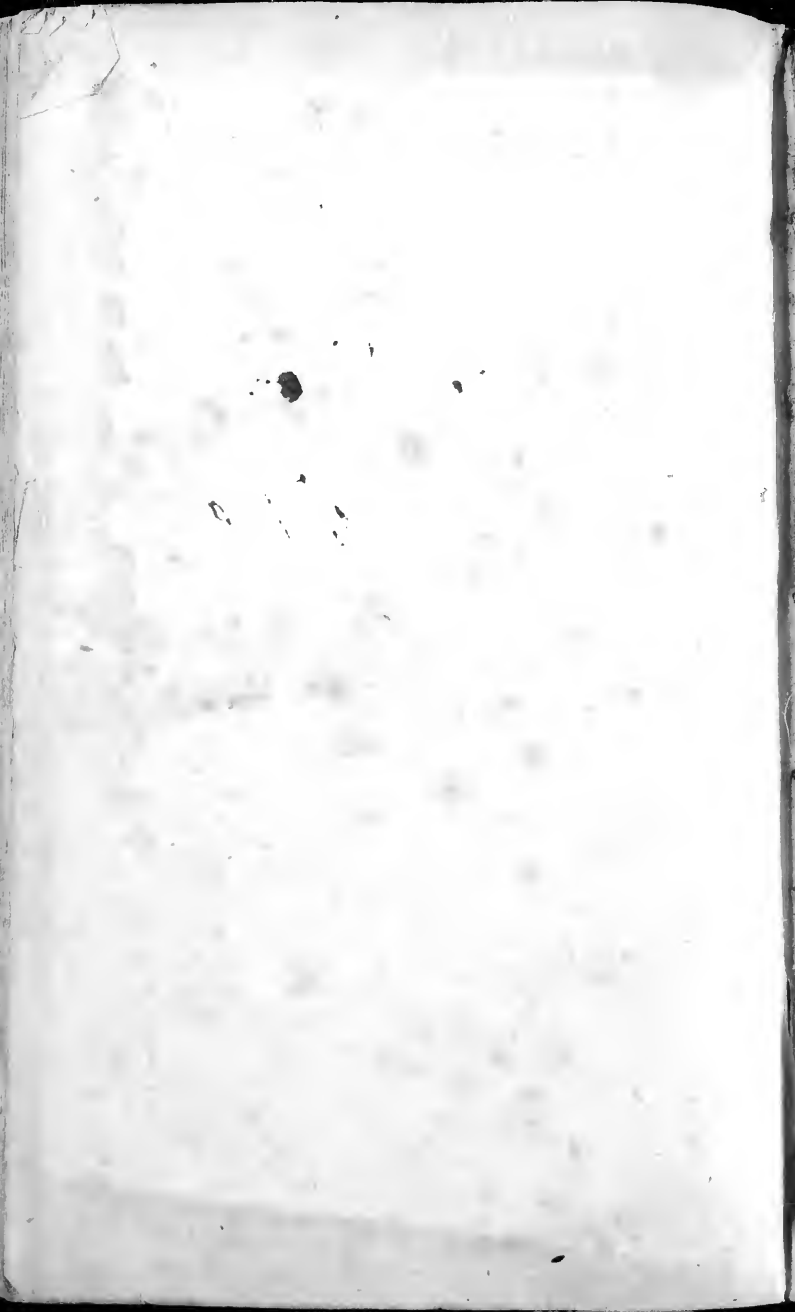
rieties, because these defects will be continued to their descendants, who (as I before have proved) will only attend to the parental song. Some of these descendants also may have imperfect organs; which will again multiply varieties in the song.

The truth is, as I before observed, that scarcely any two birds of the same species have exactly the same notes, if they are actually attended to, though there is a general resemblance.

Thus most people see no difference between one sheep and another, when a large flock is before them. The shepherd, however, knows each of them, and can swear to them if they are lost; as can the Lincolnshire goatherd to each goose.

F I N I S.





Thomas Bakors

Cole Vigorn

1796

